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JPRS Report

Epidemiology

WORLDWIDE HEALTH

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JPRS-TEP-92-016 *29 September 1992*

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[This EPIDEMIOLOGY report contains only material on worldwide health issues. AIDS and other epidemiology topics will be covered in later issues. Comments and queries regarding this publication may be directed to Roberta, FBIS, P.O. Box 2604, Washington, DC 20013.]

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Health, Nutrition Problems in Huila

92WE0636A Luanda JORNAL DE ANGOLA in Portuguese 5 Aug 92 p 8

[Article by Cesar Andre: "Quipungo Hospital Requests Aid"]

[Excerpt] JORNAL DE ANGOLA has verified on site that the food situation of the patients in the municipal hospital in Quipungo, in Huila Province, is rather precarious, in addition to the fact that there is little diversity in the meager diet to which these patients are subjected.

A source contacted by our reporter said that during the first half of the current year, fish supplied to that hospital has been reduced by 100 percent, and he said that sea bass, cachuchu, and hake are rare treats at that hospital.

JORNAL DE ANGOLA interviewed some inpatients in that hospital, who, as a general rule, were indignant over the scarcity of the food supplies.

"We are sick and tired of mackerel," said a patient whom we met in the orthopedic ward, adding that "we have to diversify our diet, otherwise, we are going to continue to be sick."

The source added that it would be helpful if the entities connected with Commerce, Dinaprope [National Farm and Animal Products Distribution Company], and other organizations had the ability to come to the rescue in this sad situation.

Referring particularly to Dinaprope, the source stressed that it should have a plan that gives priority to the health sector in order to improve the patients' normal diet.

As for meat-based meals, the patients say that they get them just once per month.

Huila is quite rich in vegetable production, but food preparation does not follow the minimal rules of seasoning food. "With so many tomatoes, onions, and other ingredients that are produced in the province, our food is always poorly prepared because it lacks seasoning," said a patient whom we met in the physical therapy ward. The patient in the next bed added: "Here, the important thing is to fill the stomach."

On the other hand, municipal health officials contacted by our reporter stressed that the municipal health authorities have never failed to mention the miserable situation of the patients' food in their reports.

Meanwhile, more than 80,000 people are affected by hunger in the municipality of Gambos, in Huila Province, due to a plague of locusts that has cut the cereal harvests in half during the 1991-92 agricultural year, JORNAL DE ANGOLA has learned from an official source.

According to a nutrition survey carried out by the Provincial Emergency Committee, the situation is tending to reach frightening levels. Within this context, 170 tons of beans and corn donated through the logistics of the United Nations and the International Red Cross are being distributed to 35,500 people in order to meet the shortages.

The distribution of foodstuffs and other basic products is the responsibility of the Provincial Emergency and Social Affairs Committee of Huila, which will later be extended to the municipality of Kuvango in order to assist some of the people affected by hunger, which is also devastating that locality. [passage omitted]

GHANA

Guinea Worm To Be Eradicated by 1993

92WE0480A Accra PEOPLE'S DAILY GRAPHIC in English 7 Apr 92 p 16

[Article by Ibrahim Awal, Wa: "Guinea Worm Disease To Be Eradicated by 1993"]

[Text] Ghana hopes to eradicate the guinea-worm disease by the end of 1993, Dr. Sam Bugri, National Coordinator of the Guinea-worm Eradication Programme has stated.

He said the remarkable achievement made by the country so far in the fight to eradicate the disease has served as a model in Africa in efforts towards the total elimination of the guinea-worm disease.

Dr. Bugri said this when he addressed a review meeting of the Guinean-worm Eradication Programme at Wa in the Upper West Region last Thursday.

The meeting was to revise the action plan of the programme and to draw strategies to eradicate the disease by the end of next year.

Giving an overview of the programme, the national coordinator pointed out that 179,000 cases of the disease were recorded in 1989. The figure dropped to 123,000 in 1990 and further reduced to 66,400 by the end of last year.

He said the secret behind the impressive national achievement in the guinea-worm eradication effort lies in the adoption of innovations adding that Ghana was the first country on the continent to introduce the village level surveillance system.

He explained that under the system, community-based volunteers are trained to monitor and report cases of the disease for the necessary action to be taken.

On the issue of funds and logistics for the programme, Dr. Bugri said that the international community has supported the programme with enough funds and logistics. He mentioned Global 2000, UNICEF and USAID as the main groups assisting the programme.

He said five regions in the country, namely Upper West, Upper East, Ashanti, Western and Greater Accra, have been earmarked for case containment this year.

He explained that under the case containment system, every single case of the guinea-worm disease in any of these regions would be reported through an effective monitoring mechanism for prompt treatment.

Upper East Guinea Worm Sharply Reduced

92WE0480B Accra PEOPLE'S DAILY GRAPHIC in English 8 Apr 92 p 16

[Article by Iddrisu Seini, Bolga: "Guinea Worm Cases Reduce in Upper East"]

[Text] Guinea-worm cases in Upper East Region reduced from the 1989 average of 1,000 cases to 100 as of the end of last year.

This is due to the systematic programme to reduce the menace of the disease in the region.

According to Dr. Kwame Adogboba, Director of Health Services in charge of the region, the present number of less than 100 guinea-worm cases in the region was the lowest number of cases reported in any of the 10 regions last year.

He said the region is now poised for the last attack on the disease to eliminate it completely from the region.

To this end, Dr. Adogboba said his ministry would need the cooperation of all communities in the region for its accelerated intervention measures which include daily reporting of all cases for immediate treatment.

He said all health institutions in the region have been provided with staff who have been especially trained to extract worms while village volunteers would scout in the villages to flush out all cases for treatment.

The Regional Director further said filters supplied by Dupont and Precision Fabrics of America have been made available for distribution to the village communities free of charge.

Guinea Worm Cases Decline in Ashanti

92WE0581A Accra PEOPLE'S DAILY GRAPHIC in English 21 May 92 p 16

[Article: "Guineaworm Infection To Reduce in Ashanti"]

[Text] **Guinea worm infection in the Ashanti Region is expected to be reduced by about 50 percent by the end of the year.**

Reported cases at the end of April, this year was 640 from 115 villages, down from 987 cases recorded in 127 villages in 1990.

This was disclosed by Mr. Asiedu Kwapong, Ashanti Regional Co-ordinator of the Guinea worm Eradication Programme, in an interview in Kumasi on Tuesday.

Mr. Kwapong attributed the decline in infection to the provision of potable water to some villages in major endemic areas, intensification of education, and the training of volunteers in endemic areas.

He said World Vision International has assisted to provide good drinking water to Anyinofi, Adonso, Sabum, and Pekyekyiase, all in the Sekyere District part of the Afram Plains.

The other endemic districts are Sekyere West, Offinso, Ejura/Sekyeredumase, Adansi East, Amansie East and West, Ahafo-Ano, North and South, Asante-Akim South, Atwima and some communities within Kumasi metropolitan area.

MOZAMBIQUE

Average of Four Children Die Daily of Measles

MB2607181492 Maputo Radio Mozambique Network in Portuguese 1730 GMT 22 Jul 92

[Editorial Report] It has been reported from Zambezia that an average of four children die of measles daily in the Derre war-displaced center situated in Licuare Administrative Region. Reports from Derre say that the number of deaths could rise due to the lack of health care.

Total of 300 Tuberculosis Cases

MB1608182192 Maputo Radio Mozambique in Portuguese 1030 GMT 14 Aug 92

[Editorial Report] A total of 300 Tuberculosis cases has been recorded in Inhambane Province in the first 6 months of 1992. This information is contained in a report from the Nampula Provincial Health Directorate.

SOUTH AFRICA

Adequacy of Nation's Health Care Examined

92WE0640C Johannesburg ENGINEERING NEWS in English 31 Jul 92 pp 38, 40

[Article: "Health Care: Is South Africa Doing Enough?"]

[Text] **South Africa spends about four to five percent of its Gross National Product on preventative medicine. While this is on a par with other countries in the world, the question must be asked whether it is sufficient to meet the needs of South Africa's population. On the eve of the four-day International Health Conference, to be held in**

conjunction with a five-day exhibition, THE ENGINEERING NEWS spoke to the president of the Community Health Association of Southern Africa (Chasa), Professor Erik Glatthaar, about this and other issues.

Health care, or in the case of South Africa, the lack thereof, is poised to become one of the crucial social issues of the 1990s. In what way is Chasa addressing the critical issue of comprehensive health care in the community?

Chasa is an independent umbrella organisation for comprehensive health in southern Africa which knows no exclusivity, which is not bound to any particular ideology and which transcends the traditional barriers between lay and professional people.

Chasa offers a new beginning where all can meet to plan the future, to alleviate fears, to share a new vision of health care provided by a team where no group is dominant and where the opinions of all are respected.

Could you give us details of the upcoming international health conference and the reason why it has been referred to as international?

The event comprises a four day International Health Conference on August 4 to 7, 1992, and a five day Exhibition at the National Exhibition Centre in Johannesburg, on August 3 to 8, 1992.

It is international as 12 international speakers, representing 10 countries will participate in the programme.

The Health Conference will address "Critical Issues in Comprehensive Health" and will include provision of health care, environmental health threats, TV, AIDS, destructive lifestyles, trauma, cardiovascular disease, drug policies, and dilemmas in nursing.

This event will call on visitors, delegates and exhibitors from across the globe and will afford the unique opportunity for members of the multi-disciplinary health team, as well as the non-professional health workers, to meet local and international members to make recommendations for recommendations future.

How much is spent by the South African public sector a year on health care?

About four to five percent of the GNP is spent on preventative medicine.

Does this meet the spending criteria as a percentage of gross domestic product laid down by the World Health Organisation?

It is very much on par with other countries in the world, but it must be improved as it is still not sufficient to meet the needs of the population, and too large a slice of the budget is still allocated to curative medicine.

What is regarded as primary health care?

It is essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that they and the country can afford.

It forms an integral part, both of the country's health system of which it is the nucleus and of the overall social and economic development of the community".

How many of South Africa's 35-million inhabitants have access to primary health care?

Although generally the South African health services—both urban and rural—are adequate, there are unfortunately many areas where access to effective primary health care is limited.

The problem specifically arises in the urban areas due to an influx of people.

Because of this increase in the population in the urban areas, hospitals and sanitation etc. are unable to keep up. Particularly noted is the increase of the squatter population.

What is the infant mortality rate in South Africa and how does this rate compare with that which exists in other countries?

The overall infant mortality rate in rural areas is approximately 70,000, while it is much lower in urban areas.

What is the recommended ratio of population to health care personnel?

Approximately one doctor to 1200 of the population.

Although the numbers of available health manpower is reasonable, there is a maldistribution of health professionals.

There are too many doctors in the urban areas, but not sufficient in the rural areas.

However many medical students are now spending time during their training in the rural areas, and some have enjoyed it to such an extent that they have decided to stay on.

The only problem that has arisen from this kind of scheme is the lack of accommodation for the doctors and medical staff.

Chasa is currently investigating ways to assist with the facilities available for community based medical education.

What directives of the WHO does South Africa conform to? What important directives are still unattainable in SA?

South Africa follows all the directives set out by the WHO.

Attention should still be given to improving immunization coverage and primary health care services in general.

What liaison does Chasa intend on maintaining with the other 50 nations of the continent of Africa?

Chasa is still fairly young, however links have already been established with various neighbouring countries.

How long has Chasa been linked to the WHO?

Chasa is currently investigating ways in which to establish links with WHO and similar international bodies.

How many delegates will attend the forthcoming exhibition and conference?

Interest has been tremendous, and it is expected that approximately 1,000 delegates will attend.

What does Chasa hope to achieve through the staging of this event?

The aim of the conference is to bring together representatives of the widest possible spectrum of members of the health team and numerous fragmented groups working in isolation in health care services, to debate critical health care issues and to make recommendations for the future.

This conference aims to conclude by formulating formal resolutions for the improvement of health care in southern Africa.

The exhibition is aimed at professional organisations and the Public at large.

Products and services contributing towards a safe, happy and healthy community in terms of people and environment will be exhibited.

What contribution can health care make to the economy and must it be seen as a wealth consumer rather than a wealth creator?

The impact can be immediate.

When there is health care in the community, it uplifts the community and improves the quality of life, which in turn makes people more productive.

This will contribute to the manpower of the country which has a great effect on the economy. Therefore a healthy worker makes for a productive worker.

How old is Chasa and who are its main members?

The inaugural meeting and formal establishment of the association took place on September 16, 1988.

Its main members are professional individual members.

The rest of the Association is made up of professional groups, affiliate members, corporate associate members (both non-profit making and profit making), and individual associate members.

Membership is open to anybody interested and involved in the health and well-being of the communities.

What are the association's aims and objectives?

Health Care in SA: Chasa Boss Speaks Up

Chasa will fulfil its main objective with the following aims:

Establishing liaison and co-operation amongst member groups and other health professionals involved in the field of community health;

Identifying specific community health needs and problems and acting as an advisory and consultant body on such matters;

Making and submitting of recommendations on community health to policy makers;

Promoting and co-ordinating common interest of members;

Contact and affiliation with other bodies pursuing similar objectives;

Encouraging the establishment of regional groups to facilitate the aims and objectives of the association; and

Arranging conferences and other meetings.

Chasa's main objective is to promote and develop the theory and practice of comprehensive health care, thereby improving the quality of life for all individuals and communities in southern Africa.

The association is linked to the aims and objectives of the World Health Organization's directive for the future: "Health for all by the year 2000" through primary health care.

It is vital that the numerous fragmented groups working in isolation in health care delivery come together to form a united front to debate critical health care issues and to make recommendations for the future.

In establishing the association as a non-political body, independent of any existing organisations, it is intended to co-ordinate and to promote the activities and interests of member groups without infringing on their autonomy, to the betterment of the health of all communities.

What have been its achievements to date?

Chasa is holding its second international conference. It has its own journal, keeping members up to date on events.

It has already been recognised by other professional associations.

It has just launched a large project in the western Cape for the prevention and cure of Tuberculosis worth R6 Million.

Chasa has just returned from Bophuthatswana after holding an oral health care week out in the bush. The project was a great success.

What other issues would you like to discuss?

Chasa was approached to assist with the arrangement of the implementation meeting of a National Asthma Campaign. A successful steering meeting was held.

An Agriculture Health Unit has been established under Chasa's auspices, to address health care in the formal agricultural sector.

We are currently working on a project dealing with illiteracy in Lebowa.

Chasa extends a challenge to all to join the health team and help in contributing towards a happier, healthier Southern Africa.

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Ondersterpoort Vaccine Plant; New System

92WE0648A Johannesburg ENGINEERING NEWS in English 14 Aug 92 p 63

[Text] The Department of Agricultural Development is to install a R1.5-million crossflow filtration system at its animal vaccine production plant at Ondersterpoort.

The German system, to be supplied by Sartorius, will enable the Ondersterpoort plant to concentrate individual vaccine components faster and more efficiently so that it can manufacture the latest single dose combination vaccines—products offering one-shot protection against four, five or more different diseases.

The ultra-filtration system is claimed to be the largest ever supplied by Sartorius outside Europe.

The plant, which manufactures products primarily for cattle, sheep, pigs and horses, is the sole supplier of certain of vaccines, mainly those for preventing diseases considered to be endemic in southern Africa.

Health Ministry To Build 7 Vaccine Production Lines

HK2904063292 Beijing CHINA DAILY in English 29 Apr 92 p 1

[Article by staff reporter Xie Yicheng: "$93m Shot in Vaccine Industry"]

[Text] The Ministry of Public Health will invest 500 million yuan ($93 million), including $60 million of World Bank loans and international grants, to build seven vaccine production lines in Lanzhou, Shanghai and Kunming.

The project, scheduled to be completed before 1995, will play a key role in wiping out five infectious diseases: Measles, polio, pertusis, diphtheria and tetanus in the country, and give a boost to immunization among Chinese children.

In January 1990, DHV Consultants, a Netherlands firm, signed a contract with China to conduct the project, the world's largest technical innovation and technology transfer item involving biological products.

In accordance with the agreement, the quality of vaccine products must reach the criteria of the World Health Organization (WHO). Meanwhile, the facility management level will also meet the Good Management Practices (GMP) standard set by the European Community.

Dr. J.E. Andriessen, the visiting Dutch Minister of Economic Affairs, and Sun Longchun, Vice-Minister of Public Health, yesterday attended the opening ceremony of the Beijing office of the Sino- Dutch vaccine project.

Sun said that China is making sustained efforts to strengthen preventive health services and upgrade the production of biological products for the benefit of the future generation.

New Hepatitis-A Vaccines Put on Market

OW1509020892 Beijing XINHUA in English 0050 GMT 15 Sep 92

[Text] Hangzhou, September 15 (XINHUA)—A new kind of hepatitis-A active vaccine has been mass-produced and put on the market in the scenic east China city of Hangzhou Monday.

The vaccine was developed by scientists at the Zhejiang Academy of Medical Sciences after 13 years of effort. It has been used on 600,000 people, and the result has proved to be very encouraging.

"It may be the most effective, safe and simple preventive method against the virus," said Mao Jiangsen, president of the academy.

He said that the development of the vaccine is of great importance in the world as well as in China. According to him, there are 4 billion people in the world threatened by the hepatitis- A virus, and in China, one billion people have to face the threat.

In 1988, a million residents in Shanghai, China's leading metropolis, suffered from hepatitis-A.

With the new vaccine, hepatitis-A may be wiped out completely, according to Mao Jiangsen.

INDONESIA

German, Japanese Governments Present Grants

BK2904124292 Jakarta ANTARA in English 0911 GMT 29 Apr 92

[Excerpts] Jakarta, April 29 (OANA/ANTARA)—The German and Japanese Governments have presented grants amounting to five million German marks and 564 million yen respectively for a PLN [State Electricity Corporate] training center project at Meninjau, West Sumatra and for a malaria eradication program.

The signing and exchange of the two project notes were carried out at separate occasions between the director general of foreign economic relations of the Indonesian Foreign Office, Wisber Loeis, and German Ambassador Walter Lewalter and Japanese Ambassador Michihiko Kunihiro respectively here on Wednesday. [Passage omitted]

Meanwhile at a separate occasion the Japanese grant of 564 million yen was handed over and was earmarked for the financing of a malaria eradication program in Java, Bali and the southern part of Sumatra, particularly transmigration resettlement sites.

Economic second secretary for health, sanitation and environmental affairs of the Japanese Embassy, Moriguchi, explained that the Japanese Government paid great attention to the efforts to control and eradicate malaria since 1988 by providing the necessary aid.

Asked about the countries which also received aid for the eradication of malaria, Moriguchi said "a number of countries in Latin America and Southwest Asia" without mentioning however which countries.

The aid provided by the Japanese Government to Indonesia consisted of a number of sprayers and insecticides, Moriguchgi said.

LAOS

Anti-Schistosomiasis Mekongi Training in Champassak

BK0906105892 Vientiane KPL in English 0902 GMT 9 Jun 92

[Text] Vientiane, June 9 (KPL)—The Public Health Service of Champassak Province, in collaboration with the Malaria and Parasitology Institute as well as the Medical Information and Health Education Centre, in late last month opened in Khong District, Champassak Province, a training course on anti-Schistosomiasis mekongi for 26 medical workers from many villages in Khong and Mounlapamok Districts.

The participants were trained on methods of such disease prevention and treatment as well as on ways to educate the local people as to how to prevent and combat the disease.

A recent investigation indicated that most of Khong inhabitants were detected with *Schistosomiasis mekongi*, especially 98 percent of those living in Ban Na. After the distribution of medicine and the treatment, the rate has reduced to 6 percent.

Vientiane Prefecture Warning on Dengue Fever Outbreak

BK1407122692 Vientiane KPL in English 0908 GMT 14 Jul 92

[Text] Vientiane, Jul 14 (KPL)—Early this month, the public health and social welfare service of Vientiane Prefecture issued here a note warning the Vientiane residents of the dengue fever.

According to the note, there were signs of dengue fever reported in some districts of the prefecture last month. In order to prevent the outbreak of the illness in the prefecture this year, the service requests the public to observe some preventive instructions.

The service has instructed the local residents to acquire covers for their water containers in prevention of the breeding of mosquito carriers, frequently clean the containers, [and] clear any possible breeding grounds of mosquito carriers, that is, anything capable of holding water—gutters, bushes around houses. Mosquito repellent spraying is also suggested in the note. Children should be slept in mosquito nets day and night.

Children suspects of affected by dengue fever should be taken to hospitals. [as received] Self-prescription must not be taken.

The note also asks local residents to cooperate with medical workers who are to inspect the sanitary conditions in localities.

VIETNAM

Health Minister—Led Delegation Visits France 20-24 May

BK2505150992 Hanoi VNA in English 1435 GMT 25 May 92

[Text] Hanoi VNA May 25—Prof. Pham Song, member of the Communist Party of Vietnam Central Committee and minister of public health, headed a delegation for a visit to France from May 20-24 at the invitation of the French minister of health and humanitarian action, Bernard Kouchner.

During his stay in France, Pham Song and his French counterpart discussed questions of bilateral cooperation in medicine and pharmacy. The Vietnamese delegation also discussed pharmaceutical technology with French businessmen who are interested in cooperation and investment in this field. The delegation toured a number of companies manufacturing vegetable-based medicines and some medical research institutions.

Vo Van Kiet Visits 103d Military Hospital

BK1006095592 Hanoi Voice of Vietnam Network in Vietnamese 1430 GMT 8 Jun 92

[Text] On the morning of 8 June, Chairman of the Council of Ministers Vo Van Kiet, called on the Vietnam steering committee for kidney transplants in order to see the scientists involved in kidney transplants and the patients at the 103d military hospital.

Accompanying the chairman were Professor Pham Song, health minister and Tran Tphuong Xa, chief officer of the Council of Ministers. Major General and PhD professor Le The Trung, deputy head of the steering committee and chairman of the council of kidney transplants, large numbers of professors and doctors of the steering committee, and experts at the 103d military hospital welcomed Chairman Vo Van Kiet and reported their achievements since the establishment of the hospital.

After a period of active preparations up to April 1992, the council of kidney transplants was established, gathering more than 70 scientists of all faculties of nephrology, internal medicine, immunization, surgery, anesthesy, recovery, and so forth to make techical preparations. At the same time, various material and technological facilities were readied for kidney transplants.

The 103d military hospital was selected as the place where technical facilities were to be made ready along with other careful preparations. At 0940 on 4 June 1992, the first kidney transplant was carried out. The receiver was Vu Dinh Doan, a soldier, native of Ninh Binh, who suffered from chronic nephritis and 20 times had had hemodialysis because of artificial kidneys, causing him many side effects, such as high blood pressure and heart weakness. The kidney donor is Vu Manh Toan, 28 years old, Doan's blood brother.

So far, the health conditions of both receiver and donor have been observed as good. The transplanted kidney has started to excrete urine.

Chairman Vo Van Kiet visited both the brothers Doan and Toan. Through the partition glass panel of the surgery room, he was pleased to see that Doan was in good health and talked with him through the intercommunication phone. The chairman carefully inquired about Doan's health and cordially told Doan: I congratulate you, comrade, which means that I congratulate the Vietnamese doctors and professors for their first success in kidney transplant. I wish you a quick recovery. You have done a very good deed which surpass all limits of family sentiments and shows the sublime humanity of the Vietnamese people.

Then the chairman went on to see the second kidney transplant, which took place at 0400 this morning. The kidney receiver is Bui Tan Do, 57 years of age, a native of Nam Ha province, who had undergone hemodialysis many times. The donor is Mrs. Bui Thi Phu, 45 years of age, Do's aunt. Professors and doctors Nguyen Buu Trieu, To That Bach, Do Hong Son, Le Sy Toan, Nguyen Dinh Cu, Nguyen Hong Ha, Nguyen Duc Thien alias Tuong, Nguyen Xuan Luong and Nguyen Van Sang participated in the transplant operation.

Professor Chue Shue Lee and Mrs. (Mesandoz) provided technical support and medicine. The medical institute, the 103d military hospital and the Viet-Duc hospital also cooperated in this surgical operation.

Chairman Vo Van Kiet also visited some installations in the 103d military hospital. He commended the hospital for satisfactorily combining oriental and occidental medicine in its therapeutics, for having installed a highly technical center to serve patients and a medical center to provide medical assistance to various groups of the population, and for having combined the treatment process with scientific training and research. He particularly welcomed the first success in kidney transplant in our country, which was carried out in the hospital.

Hydrolysis Research Yields Anti-Inflammation Ingredient

BK1006020692 Hanoi Voice of Vietnam Network in Vietnamese 1100 GMT 4 Jun 92

[Text] The organic biochemistry research section under the direct management of the Vietnam Institute of Sciences has successfully tested a new biological hydrolysis method aimed at extracting sapogenin from ananas juice and then refining it into an ingredient for use in the production of anti-inflammation drugs.

Pact Signed for Australian Aid in Malaria Treatment

BK1206070192 Hanoi VNA in English 0606 GMT 12 Jun 92

[Text] Hanoi VNA June 12—The Ministry of Public Health and Australia signed in Hanoi on Thursday a memorandum of understanding on Australia's grant in 2.4 million U.S dollars worth of chemicals and medicines for malaria treatment as aid to Vietnam.

Nguyen Khanh Addresses Anti-Malaria Conference

BK0707122192 Hanoi Vietnam Television Network in Vietnamese 1200 GMT 4 Jul 92

[Text] On 2 July 1992, the Ministry of Public Health held a conference in Hanoi to review the anti-malaria work in the first six months of 1992. Nguyen Khanh, vice chairman of the Council of Ministers addressed the conference.

The conference reviewed the achievements of the anti-malaria work in the past and outlined the work in the future with more funding for the prevention and treatment of malaria. With funding from the central and local governments together with contributions from the public

and foreign assistance, the work will concentrate on malaria- infected areas first, then extend to other areas so the disease can be stopped and eradicated in Vietnam.

Speaking at the conference, Comrade Nguyen Khanh stressed the importance of the anti-malaria work. He hailed fine results achieved by people doing this work in the last year and pointed out some problems which need to be overcome for better results in the work and in improving the people's health.

Eighty Percent of Children Under One Year of Age Vaccinated

BK2106151792 Hanoi VNA in English 1408 GMT 21 Jun 92

[Text] Hanoi VNA June 21—From 1989 to 1991, every year eighty percent of Vietnamese children under one year of age were vaccinated.

This was the finding by the World Health Organization (WHO), the United Nations Children's Fund (UNESCO) and many experts from the United States, France, Britain, Japan, Australia, Thailand and Korea in a recent survey they conducted in collaboration with the Vietnamese Ministry of Public Health.

The team noted that for many consecutive years, Vietnam has achieved a high rate of vaccination against the six main child killers, however, due to the reduction of international aid, polio vaccines have fallen below demand, thus affecting the result against the anti-polio campaign in the coming years.

Vietnam Veterans' Deaths by Agent Orange on Increase

SK0808042392 Seoul YONHAP in English 0107 GMT 8 Aug 92

[Text] Seoul, Aug. 8 (YONHAP)—Thirty-one Vietnam war veterans have died from the aftereffects of exposure to Agent Orange or have committed suicide this year while waiting for the military to process their applications for medical treatment.

According to the Association of Meritorial Koreans-Vietnam War, four took their own lives. Nine veterans died in July, and two were added to the list this month.

One of the dead from August is Kim Chong-chun, 48, who fought in the White Horse Division of the army.

The association, which registered 16 deaths in 1990 and 12 in 1991, blames the rise on a rapid deterioration of health among victims of Agent Orange in their late 40s from skin problems, paralysis and cancer. Another factor is a higher report rate since the problem was brought to light early this year.

"There are critically ill patients scattered around the country who may die at any moment, and they are dying without even receiving proper treatment from the military because its ruling on wartime injuries was delayed by proof-of-service checks and a study of the causes the illness," an association spokesman said.

Nguyen Khanh Attends Traditional Medication Meeting

BK1409103092 Hanoi Voice of Vietnam Network in Vietnamese 1430 GMT 10 Sep 92

[Text] On 10 September morning in Hanoi, the Ministry of Public Health held a meeting on Vietnamese traditional medical treatment to review its work in the last 30 years. The meeting was attended by Nguyen Khanh, vice chairman of the Council of Ministers; Pham Song, minister of public health; and professors, medical institution heads, leaders of the traditional medication sectors, and more than 420 representatives from ministries, departments, sectors, provinces, hospitals, and medical centers. The meeting was also attended by many senior traditional medical practitioners.

On behalf of the Ministry of Public Health, Professor and Minister Pham Song reported on the development of the Vietnamese traditional medical treatment in the last 30 years. He cited the correct policy of the party and state on traditional medication, efforts of the medical sector in implementing the party and state's policies on traditional medication, and the achievements of Vietnam's traditional medication.

Nguyen Khanh Visits Binh Luc Pharmaceutical Company

BK1509090592 Hanoi Vietnam Television Network in Vietnamese 1200 GMT 12 Sep 92

[Text] Recently, Nguyen Khanh, vice chairman of the Council of Ministers visited the Binh Luc Pharmaceutical Company, an enterprise producing anti-malaria medicine from local yellow-flower artemisia.

In 1991-1992, the Binh Luc Company invested a closed production line to produce (?apeniciline) [artemicinin] from dried yellow-flower artemisia. With this line, the collection rate of (?apeniciline) reaches 0.35 to 0.45 percent. In the first nine months of 1992, the company produced 45 kg of (?apeniciline) with each kilogram valued at one million dong. The company has combined the task of anti-malaria medicine production with the work of organizing raw material supplying from 28 villages of the district by encouraging the local people to exploit empty land to cultivate and harvest 130 tonnes of dried artemisia. In 1992, the Binh Luc Pharmaceutical Company will increase production of (?apeniciline) to 200 kg.

On this occasion, Comrade Nguyen Khanh reminded the leading cadres of Nam Ha Province and Binh Luc District to pay more attention to the establishment of the grassroots medical service and to improve the implementation of medical aid programs.

Production of Anti-Malaria Drug Begins in Central Province

BK1308162792 Hanoi VNA in English 1548 GMT 13 Aug 92

[Text] Hanoi VNA Aug 13—The first production chain for the anti-malaria drug artemicinin was installed in Nghe An province, central Vietnam in early August. It can daily produce 1.5-2 kg of artemicinin, an efficacious anti-malaria drug prepared from the "Than Hao Hoa Vang" (Artemisia Apiacea Hance). One kilo of artemicinin can treat 400 malaria sufferers.

The drug production chain is the culmination of an antimalaria programme conducted by the natural compound chemistry institute under the Vietnam Institute of Science. About 70 kg of artemicinin are expected to be produced this year to meet the local demand in anti-malaria drug. Nghe An is one of the provinces in north Vietnam most heavily affected by malaria in recent years. In Que Phong district alone, malaria caused 301 deaths in 1991.

In the first five months of this year the number of fatalities among malaria patients in the district dropped to seven. Besides, 1.5 million malaria sufferers have been administered 18 million anti-malaria tablets and ampules, and 200 tonnes of mosquito-killing chemicals have been sprayed in target areas inhabited by 2.3 million people. As a result, outbreaks of malaria have been stamped out before they became epidemics.

ALBANIA

Health Official: Environmental Pollution 'Embarrassing'

AU1209135892 Tirana ATA in English 0810 GMT 12 Sep 92

[Text] Tirana, September 12 (ATA)—In an interview with the newspaper RILINDJA DEMOKRATIKE, the deputy minister of health and environmental protection, Besim Nuri, said among other things that the environmental pollution, particularly in the major cities, is a very embarrassing problem.

This situation, the deputy minister says, is inherited from the past. The lack of the means to gather the wastes, the numerous private constructions without criteria and permission in the center of the cities, the building wastes, etc., have led to such an environmental pollution. This unsatisfactory situation influences directly in the health of the population, in the spread of infective and parasitic diseases.

The interview points out that the draft law on the sanitary control, to be soon submitted to the government, is drafted. It envisages severe sanctions against infringers in down to penal prosecution.

HUNGARY

Characteristics of Public Drug Supply Organization in the Hungarian Republic

92WE0578 Moscow FARMATSIYA in Russian, Vol 41 No 1 Jan-Feb 92 (manuscript received 19 Mar 90) pp 73-76

[Article by R.S. Skulkova and I.B. Kalinina, All-Union Scientific-Research Institute of Pharmacy, Moscow; UDC 615.19(439)]

[Text] The problem of improving the supply of medicinals to the public in our country is becoming increasingly urgent. In that connection a study of foreign experience in the operation of pharmacy services, particularly the service in the Hungarian Republic, appears to be desirable. There is no doubt about the interest in such organizational solutions to problems concerned with the assured availability of medicinals, the standardization of pharmacies, the level of organizing the work of pharmacy employees, quality control of drug products, regulations for prescription writing, the procedure for dispensing medicinal agents and their costs. This was in fact the subject of the present study.

The objects of our study were pharmacies in Pudgiest in which we directly observed the organization of their operations. We also analyzed departmental materials, standards and organizational documents and statistical data [1, 2, 5, 11].

According to the data of 1989 the country had about 1500 pharmacies including 50 which engaged only in the dispensation of prepared medicinals, bandages and dressings and patient care items [4].

Pudgiest has 204 open-type pharmacies through which about 91 percent of the medicinal agents are sold to the public. The remaining 9 percent are intended for release to small wholesale and therapeutic-prophylactic institutions of the city.

The city's pharmacies employ 640 manager pharmacists, 910 druggists and approximately 400 auxiliary personnel such as sanitation-cleaning personnel and wrappers [6].

The methodical supervision and control over pharmacy operations in the country is accomplished by the corresponding oblast or municipal Pharmacy Centers [5-7].

As our study demonstrated, the pharmacies of the Hungarian Republic are divided into three types [12]. The primary task of the first type is to provide medicines to the public and certain therapeutic-prophylactic institutions. The pharmacies of this type also prepare and dispense drugs prescribed by veterinarians.

The pharmacies of the second type provide medicinal agents only to therapeutic-prophylactic institutions. At the same time these pharmacies service not only inpatients but out-patients attending specialized dispensaries and polyclinics that function as a unified complex with a hospital.

Hungary also has so-called non-prescription pharmacies which dispense only prepared drugs, dressings and bandages and patient care items. These pharmacies are organized directly in the physicians' offices. The physicians themselves dispense such drugs to their patients.

The location of pharmacies throughout the country is arranged in accordance with current norms that take into account population density, the radius of the areas serviced, and the presence of therapeutic-prophylactic institutions [4, 6, 9]. In that regard, the pharmacies of the first type are opened in areas having no less than six thousand inhabitants with a service radius in rural areas not exceeding 1.5 kilometers, and in rural areas not greater than 8 kilometers. Pharmacies of the second type are opened in areas where a therapeutic-prophylactic institution has no less than 450 beds.

The pharmacies in the physicians' offices are organized in those areas where there are no pharmacies of the first two types.

Thus, maximum availability of medicinal assistance is provided to the public that takes into account the division of functions between pharmacies and their corresponding location as stipulated by the standard documents.

An analysis of statistical data has shown that on the average there is one pharmacy for about every seven thousand inhabitants. In Pudgiest that figure is one for

every ten thousand, and in some rural areas the ratio is one for every five thousand persons [4, 6, 8].

The pharmacies of Hungary are subdivided into five categories dependent upon the number of persons being serviced [12] (see Table).

The wages earned by pharmacy employees depend upon the size of the population served. In that connection, all employees (not only supervisors) who serve a larger number of the populace are paid a higher salary [9]. This differentiation in pharmacy worker wages contributes toward a higher measure of interest on their part to work more intensively, i.e., in pharmacies located in densely populated localities.

A pharmacy is supervised by a manager who is appointed to this position by the Pharmacy Center of the corresponding oblast or city.

In addition to carrying out administrative-managerial functions a pharmacy manager is also entrusted with obligatory functions related to the organoleptic quality control of drugs prepared at the pharmacy. A pharmacy manager is obliged to spend part of his work time on the preparation of medicinals as prescribed for individuals, acceptance of prescriptions, and the dispensation of medicinal agents.

The number of senior pharmacists, druggists, sanitation-cleaners, and cashier-controllers depends upon the type and category of the pharmacy in which they are employed [2, 5, 6, 12].

Number of Inhabitants Served by a Single Pharmacy

Pharmacy category	Number of population served, thousands of persons
A	6-8
B	8-10
C	10-12
D	12-16
E	over 16

All managing pharmacists are obliged to change the type of work they are carrying out during work shifts. Thus, within an eight-hour shift a senior pharmacist [provider] weighs out medicinal substances for preparing drugs for the first two hours in addition to participating in their partial preparation. During the third hour of the shift he fills measuring vessels with medicinal substances. During the next three hours he accepts prescriptions and dispenses medicines. During the last two hours identifies any deficiencies and assists the manager in the execution of administrative-economic functions. Quality control of medicinal agents in the pharmacies are not assigned to any one individual and is carried out by all senior pharmacists [provider] by turns [2, 3, 12].

The organization of a concise sequence in the execution of functions is accomplished in accordance with network work schedules that are worked out monthly, approved by the pharmacy manager and conveyed to all responsible persons. This helps to reduce fatigue, raises productivity, provides for a qualitative interchangeability, and creates a healthy sound psychological climate among the workers.

Druggists are not entitled to weigh out medicinal substances, but do participate in individual operations concerned with the preparation of medicines (mixing ointments, dosing of powders, rolling suppositories). The druggists are responsible for replenishing the stock of prepared drugs in the dispensing department. Only specially trained druggists are entitled to dispense medicines, thereby releasing the pharmacists to carry out more responsible types of operations [12].

Medicinal agents and raw plant materials received in the pharmacy are checked quantitatively and qualitatively by the pharmacists in accordance with the requirements of the 7th Hungarian Pharmacopoeia [3, 7, 8, 12]. The pharmacy pharmacists subject approximately 30 percent of intra-pharmacy stock to inspection. The results of the express-analyses are recorded in registration books and are brought to the attention of the Pharmacy Center.

Quality control of medicinals prepared in pharmacies that are prescribed individually are selected not less than once every quarter by pharmacist-inspectors of the Pharmacy Center. Moreover, they perform organoleptic and physical inspections and qualitative and quantitative analyses at the analytical laboratories of the Pharmacy Center.

Selective inspection requires heightened personal responsibility on the part of pharmacy pharmacists for the quality of the medicinals prepared there.

The procedure for the dispensation of drugs to the public in Hungary is being constantly improved. New regulations for the writing of prescriptions and the dispensation of prescribed drugs went into effect in January 1989 [6, 9-11].

A physician may prescribe no more than two different kinds of drugs on one prescription blank and is obligated to indicate on the prescription the patient's name, address, and age, along with the date of the prescription. The prescription must be signed and stamped with his own code number. Privately practicing physicians have their own stamp which indicates not only his name but also his address, telephone, and permit number for private practice. A patient may not obtain a drug in a pharmacy if the prescription does not contain the stamp and signature of the physician (except in extreme cases). In the absence of a prescription blank a physician may write out a prescription on a sheet of paper as long as the indicated regulations are observed. In the event of the need for the immediate dispensation of a drug the physician must make the notation: "cito" or "statim." Restricted narcotics must be prescribed on a special blank in two copies [11].

Medicines are dispensed free of charge with special prescriptions to the following types of patients: - patients in hospitals and clinics; - to patients being given first aid; - to patients suffering from job accidents or vocational diseases; -patients receiving full state support (children's nurseries, homes for the aged, etc.); -patients with certain groups of diseases (22 categories); - officers and enlisted men on emergency duty in the army as well as to members of their families; - patients on fire protection service.

In the enumerated cases the physician must indicate the reason for the gratis dispensation (diagnosis or contingent of patient), and privately practicing physicians must stamp the prescription "free of charge" [11].

Drugs are subdivided into three groups dependent on the dispensation procedure: I- drugs always dispensed without a prescription (for full cost); II-prescription only drugs; III- drugs dispensed by prescription at a discount, or for full cost without a prescription.

A discount of 80 and 90 percent is possible for drugs of categories II and III chargeable to social insurance. A discount of 80 percent is allowed for all drugs prepared individually and dispensed by prescription [9, 10, 11].

A customer at a pharmacy may request the preparation of simple drug whose compounding is generally known without a prescription for full cost. The corresponding discount chargeable to social insurance is also applicable to prescriptions written by private physicians.

Drugs for veterinary purposes are dispensed only for full cost.

A physician or a veterinarian, upon proper medical identification, may obtain any drug without a prescription, but for full cost.

A prescription's validity is fixed at up to one month but may be extended in the event of the drug's temporary unavailability. In this case the pharmaceutical worker makes the appropriate notation on the prescription blank.

At the time of dispensation all prescriptions for drugs remain in the pharmacy. Drugs prepared on the premises of the pharmacy and are not picked up by patients are kept in the pharmacy until the prescription validity expires, but not longer than one month [10, 11].

The procedure for dispensing drugs, their cost and regulations for writing prescriptions enhances the importance of patient visits to the physician which reduces the number of attempts at self-treatment.

All pharmacies in Hungary have cash registers equipped with a special program that calculates the reduced cost of any one particular drug dispensed by prescription. In addition, identical prices have been established for certain groups of prepared drugs for the sake of convenience. This significantly facilitates and accelerates the process of dispensing drugs [9, 10].

The cost of drugs prepared on the premises of pharmacies is based on the cost of the ingredients, packaging, and cost of preparation.

The cost of packaging depends on the type and size of the package. Thus, the cost of jars for ointments range from 7 to 19 Forints (F), depending on size. The cost of preparing drugs on the premises of the pharmacy depends on the weight and number of doses of the drug prepared. For example: - weighing out drugs (regardless of quantity) - 6 F; - solution, mixture, undivided powder, herbal tea up to 200 ml - 10 F; - divided powder up to 10 powder packets - 10 F, over 10 for each powder portion 1 F; - if the powder is prepared without a prescription, then for each powder - 1F; - tablets, for each one - 1F; - suppositories, each 2F; - emulsions, ointments, nose and ear drops, paste, tinctures, etc., up to 100 ml - 15 F, over this amount for each 50 ml - 7.5F; - pills up to 30, each 1.5F, over 30 to 100 - 50F; - decoction, extract for each 100 ml - 20F; - eye drops and ointments - up to 5 ml - 15 F., over 5 ml for each 5 ml - 15F; - sterile and aseptic powder, solution up to 250 ml - 30F, up to 500 ml - 40F.

Attention to the cost of preparing (or dosing and packaging) drugs heightens the importance of the labor expended by pharmaceutical workers, although this significantly hinders the price fixing of prescriptions and slows their reception process.

As our study of the characteristics of public drug supply organization in Hungary, there are a number of procedures in this area that warrant our attention. This experience may be utilized in the organization of public drug supply in our country.

From our viewpoint the approaches to establishing rates for the individual preparation of drugs of variable time-intensity were of the greatest interest. This is presently a very pressing topic for pharmacies in our country.

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REGIONAL AFFAIRS

British High Commission Announces Funding for Carec

FL2707201292 Bridgetown CANA in English 1748 GMT 27 Jul 92

[Text] Bridgetown, Barbados, July 27, CANA—The Port-of- Spain-based Caribbean Epidemiology Centre (Carec) is in line for 1 million pounds sterling (EC5.2 million dollars) in assistance over the next three years, the British High Commission here said Monday. The high commission said the money will be provided by the Overseas Development Adiministration (ODA) through the British development division in the Caribbean.

The funding, part of the British Government's support for regional projects, will be used to finance Carec's sexually transmitted diseases/AIDS programme, epidemiology training for Carec member countries, and health economic appraisal in the caribbean.

The ODA is also providing one million pounds for agriculture through the Caribbean Research and Development Institute (Cardi), and a half million pounds grant to the University of the West Indies (UWI) Faculty of Medicine. Since 1989 the ODA has provided Carec with half a million pounds in assistance, the high commission noted. In comparison to previous assistance to Carec, the latest sum represents a substantial increase to the organisation, it added.

British High Commissioner to Trinidad and Tobago Brian Smith and Dr. Frank White, director of Carec, signed the agreement recently in Port-of-Spain.

BRAZIL

Medicinal Scientific Research Agreement Signed With PRC

PY0508034492 Brasilia Voz do Brasil Network in Portuguese 2200 GMT 4 Aug 92

[Text] Brazil and the PRC have signed a cooperation agreement to conduct research on medicinal plants. The agreement, signed at the Oswaldo Cruz Foundation [Fiocruz] in Rio de Janeiro, says that Brazilian researchers will visit the PRC during the first stage of the program. Fiocruz President Fernando Pires explains:

[Begin recording] This agreement is basically a letter of intent paving the way for Brazilian research institutes like Fiocruz to conduct research with different PRC organizations under the Science and Technology Secretariat. This is a declaration of intention. The agreement does not mention amounts, because the interested parties will allocate funds for each project according to needs and interests. [end recording]

The agreement specifies that the two countries will conduct studies on medicinal plants to treat endemic diseases like schistosomiasis, dengue, brucellosis, and other diseases. The PRC delegation was represented by Science and Technology Department Director (Gang Zigun). The agreements also establish that Brazilians will have access to studies on the use of animal medicine to treat various diseases.

CUBA

Cholera Vaccine Anticipated Before End of 1992

FL1106011692 Havana Radio Rebelde Network in Spanish 2300 GMT 10 Jun 92

[Text] Cuba is in a position to provide a vaccine against cholera before the end of the year. The announcement was made today in Havana during the second day of the Latin American Infectious Disease seminar.

Dr. Luis Garcia, from the Finlay Institute, said that he has been in the country for this reason since about the middle of 1991. He indicated that the Finlay Institute and the National Center for Scientific Research collaborated to find the vaccine against cholera, which will be administered to volunteers in controlled tests according to international requirements.

Family Doctor Program To Practice Traditional Medicine

FL0207222892 Havana Radio Reloj Network in Spanish 1940 GMT 2 Jul 92

[Text] The Jaruco municipal health administration plans to have the Family Doctor Program offices in Jaruco provide services in traditional medicine, in view of the effectiveness of the ancient skill. The local population can currently receive that type of medical care at the polyclinic for specialties.

Family doctors will receive training in traditional medicine in order to apply it as of next September. To date, in the Havana Province municipality of Jaruco, more than 400 patients have been treated with acupuncture, [word indistinct], magnets, and with the seeds of the ("cardosanto") plant.

Filiberto Rodriguez, a physician whose specialty is traditional medicine, said that an average of 40 people are attended to per day, on Mondays and Wednesdays. The (?purpose) of using this medicine is to reduce costs and the number of medical certificates.

Circulatory Illness Affects Almost 45 Percent of Nation

FL2807232592 Havana Radio Reloj Network in Spanish 1953 GMT 28 Jul 92

[Text] Because of the continuous work it has done for more than four years now in preventing and treating chronic vascular disease, the Institute of Angiology and Vascular Surgery is in the vanguard among the Minsap's [Ministry of Public Health] centers. For this, they are planning attention to the community as regard to the

preventative aspects, with specialzed examinations at the polyclinics in Cerro every two weeks, and in those of La Lisa and the one in (Quinta Brava) fortnightly, explained Institute director Dr. Delia Charles.

The Institute of Angiology also provides health education on vascular health, since there is a high incidence of circulatory illnesses. Almost 45 percent of the population is affected. The institute provides pre-degree instruction to medical students, and trains mid-level technicians in vascular hemodynamics [hemodinamica vascular] as well as specialists through professional improvement courses.

Health Levels Upheld in Las Tunas Despite Shortages

FL0708153092 Havana Radio Progreso Network in Spanish 1100 GMT 7 Aug 92

[Text] Despite the special period's temporary shortage of resources, the achievements of health workers in Las Tunas Province undeniably demonstrate that the revolution prioritizes this sector to guarantee appropriate levels of health care for the people. A clear example of this is the fact that from January to the present, the infant mortality rate dropped to 11.9 deaths per 1,000 live births. In relation to the same period the year before, this represents 12 fewer deaths.

New services have also become available at Jojabo's 14 de Junio Hospital including mud-therapy, gastroenterology, legal medicine, burn treatment, acupuncture, and a blood bank. These services make it unnecessary to move patients from this region to the provincial capital or other provinces; make it possible to guarantee better follow-up treatment; and conserve medicine. All of this contributes to improved health care services in Las Tunas. In the Jesus Menendez Municipality the people also have acupuncture and optical services available. A Hepatitis Type-B vaccination campaign for children under one year of age will begin on 10 August in this western region of Cuba.

Blood Donations 'Guarantee' Interferon, Gamma Globulin

FL1808020392 Havana Cuba Vision Network in Spanish 2220 GMT 17 Aug 92

[Text] Pinar del Rio Province reports more than 20,000 blood donations to date—of which 80 percent have been voluntary donations by members of the Committees for the Defense of the Revolution [CDR]. The contribution of the men who comprise the (Jiconal) agricultural pre-contingent of Pinar del Rio Municipality should also be noted. This group became the first in the country to be declared national promoter of blood donations because 100 percent of those fit to donate blood have already done so.

In addition to helping save human lives, this blood guarantees the industrial production of blood products such as interferon and gamma globulin. The latter is helpful in preventing or fighting diseases.

Pinar del Rio's CDR members are currently striving to win the "Blood Donations 30th Anniversary" banner, which is the award being given this year by the national leadership of the CDR's and the Ministry of Public Health.

PPG-5 Medication Marketed Commercially in Nicaragua

FL2108020892 Havana Radio Rebelde Network in Spanish 2300 GMT 20 Aug 92

[Text] Nicaraguan doctors have enthusiastically welcomed the commercialization in Nicaragua of the new Cuban medicine Ateromixol, better known as PPG-5. This Cuban medicine, which has been proven to prevent strokes without any side effects, is internationally recognized for its rejuvenating effects in eliminating the clogging of blood vessels that causes arteriosclerosis.

DOMINICAN REPUBLIC

Cholera Prevention Program Begins in Cibao Communities

FL2406164092 Santo Domingo Cadena de Noticias in Spanish 1000 GMT 24 Jun 92

[Text] A cholera prevention program will begin 24 June in several communities of the Cibao region. The cholera prevention program will include the towns of Santiago, La Vega, Moca, Puerto Plata, Bonao, Navarrete, Villa Gonzalez, and others.

This illness has caused the death of thousands of people in other Latin American countries. Regional Office No. 2 of the Public Health Secretariat, town councils, and service institutions of many of the Cibao communities are responsible for the program. The project includes the elimination of garbage dumps, cesspools, waste collection sites, and the sanitation of commercial centers and the northern zone.

PERU

Massive Vaccination Campaign Initiated Against Measles

PA1508161992A Lima Global de Television Network in Spanish 0100 GMT 9 Aug 92

[Editorial Report] The health minister initiated a massive vaccination campaign against measles in the country on 8 August. He said there have been 4,239 cases in Lima and 27 measles-related deaths in Junin.

AFGHANISTAN

State of Health Care System Detailed

92AS1207Z Tehran ABRAR in Persian 13 Jun 92 p 5

[Boldface words as published]

[Text] **According to physicians in Afghanistan, the health system in that country is about to collapse, and at the same time, those injured in the war are not admitted to hospitals because of the shortage of personnel, medicine, and equipment.**

According to a report by the French Press Agency from Kabul, the interim government in Afghanistan has been unable to create a central leadership in the country. Various groups of the mojahedin use ambulances to transport their ammunition and have destroyed doctors' offices and the procurement networks for essential needs. Fights among Mujahidin groups prevent hospital employees from going to work.

According to this report, international aid is about to end, and as a result there are shortages of such essential supplies as bandages, pharmaceuticals, and anesthetic equipment.

The International Red Cross committee, which is in charge of a 300-bed hospital for the wounded from the war, does not admit new patients, because it is full to capacity with the wounded.

No one is in charge of the Ministry of Health of Afghanistan at the present time, because Sebghatollah Mojaddedi, the head of the interim government of Afghanistan, who had entrusted the responsibility for this ministry to Najibollah Mojaddedi (his son), has appointed him head of Kabul Security and a seven-member council. In the meantime, the leaders of the mojahedin, who are loyal to the Islamic society, led by Ahmad Shah Mas'ud (minister of defense of the interim government), have replaced the heads of the important military hospitals, and consequently hospitals have become the major targets of the rivaling mojahedin groups.

ALGERIA

Applications of Nuclear Technology Discussed

92WE0498A Algiers LE SOIR D'ALGERIE in French 25 May 92 p 16

[Article by Naguib Hammouche: "Nuclear Technology in the Service of Medicine"; first paragraph is LE SOIR D'ALGERIE introduction]

[Text] Scientific technology in the service of medicine and industry is an unavoidable necessity in this 20th century. Studying nuclear technology and its applications enables one to harness its energy: to deepen one's knowledge of the technology and of the ways it can be used.

Algiers—Located at No. 2 Frantz Fanon Boulevard is the headquarters of the Center of the Development of Nuclear Technologies (CDTN), which was established by Decree No. 88.59 dated 22 March 1988. Its task is to promote research, development, and application testing in connection with radioisotopes and nuclear physics, chemistry, and radiology.

Other tasks have also been assigned to it, examples being the design and development of technological apparatus and instrumentation devices specific to nuclear technology and biotechnology.

Research, which is the main pillar of the center's activities, is part of the national programs for the development of various sectors such as health, the food industry, water resources, the caloric treatment of raw materials, and so on.

The center is active in three important areas—nuclear physics and technology, the development and application of radioisotopes, and, last, biotechnology—and has 180 employees, including 40 researchers scattered among the various laboratories and 10 management personnel, with the remainder consisting of technical support staff.

The results of the research work are evaluated by the scientific council and made known through publications and scientific reports. As soon as the center was established, the irradiation laboratory that is part of the Radiation and Isotopes Department undertook to preserve foods by irradiation. Food is subject to infestation by insects and microbial action as well as germination while in storage.

And it is thanks to that ionizing irradiation technology that a remarkable reduction in food spoilage has been achieved.

That being said, the uses of this technology are not limited to food preservation. It can also be used to induce plant mutation by irradiation. Cereals and legumes, which are the predominant crops in Algeria, often exhibit late maturation, low productivity, and low resistance to disease, but exposing their seeds to ionizing radiation can produce worthwhile mutant varieties. Experiments are under way with varieties of wheat and barley.

In agricultural chemistry, the uncontrolled use of pesticides to reduce losses or combat diseases or harmful insects can have dangerous effects on human health, since those pesticides are chemical products. Hence the center's interest in "studying the behavior and degradability of pesticides in the soil and analyzing their residues in agricultural products and the environment in that connection." Agricultural chemicals have been analyzed using nuclear and other technologies.

Besides those residues, the food industry also discharges sizable quantities of waste water, the polluting effect of which worsens the condition of aquatic flora and fauna.

That untreated waste water can be recovered, however, hence the interest in "optimizing a treatment method aimed at recovering that waste water by the use of bacteria that break down polluting organic matter." The example of research work already begun is the biological treatment of waste water from the Birkhadem dairy (ORLAC) under anaerobic conditions. "All the analysis results confirm the suitability of treatment based on fermentation, although a few surmountable obstacles remain before the process can be optimized."

In another area, isotope (nuclear) technology and related technologies are being applied in the field of animal reproduction, nutrition, and health. The objective in this case is to help increase the productivity and improve the health of livestock. The water that is essential not only for agriculture but also for industry and especially for meeting individual drinking water requirements has aroused keen interest at the center, which has used isotope technologies that are very helpful in conducting hydrogeological studies in fissured terrain, an example being the Tlemcen Mountains, which supply water for the entire northwestern region of Algeria. In sedimentology, the application of nuclear technology involving the use of radioactive tracers makes it possible, by following the movement of sediments in watercourses or in harbors, to combat the silting up of dam reservoirs and port facilities.

Irradiation is also employed in the field of medicine, where the penetrating power and bacterial effect of gamma radiation make it possible to sterilize medical equipment and heat-sensitive pharmaceuticals even in their final packaging and at ambient temperatures. Following an experimental phase, the center now provides a radiation sterilization service in which it sterilizes medical equipment for three firms in the private sector as well as for public and private hospitals. Pharmaceuticals have been the subject of similar research efforts in cooperation with the URTMP-SAIDAL [expansions not given], and those efforts have resulted in the completion of technical feasibility studies concerning the radiation sterilization of antibiotics.

The radiation pharmaceuticals laboratory, which uses radioisotopes in medicine as part of its application of atomic energy to peaceful purposes, sees its activities as being concentrated around three principal centers: the production of radioisotopes and radiation pharmaceuticals, the development of radioimmunization kits, and, last, product quality control.

Health Officials 'Concerned' Over Drug Shortages

92WE0528A Algiers ALGER REPUBLICAIN in French 9 Jun 92 p 6

[Text] For the past several months, a "disturbing" shortage of drugs, particularly those used to treat serious illnesses, has been evident throughout the national territory.

In addition, the price of all pharmaceutical products has quadrupled.

Speaking at an "awareness day" on drugs sponsored by the Ministry of Health (ODH) two days ago, Pierre Chaulet, vice president of the Human Rights Observatory, expressed his concern about the situation.

The ODH "feels a duty to inform the agencies involved so that such drugs will be permanently available throughout the national territory, especially in all public health departments."

The observatory also stressed the importance of charging reasonable prices so that every citizen will have access to treatment.

Chaulet said the shortage or unavailability of drugs due to what has become prohibitive costs for families has compromised or abruptly halted a number of health programs, particularly vaccinations for newborns, family planning, and the fight against tuberculosis.

"A thorough review of our drug supply and distribution networks and a painstaking study of their financing and marketing are essential in order to correct this situation," he concluded.

Bureaucracy Blamed for Poor Hospital Management

92WE0574A Algiers LE SOIR D'ALGERIE in French 1 Jul 92 p 12

[Article by Nabila Azzi: "Hospitals Stricken With Bureaucracy"]

[Text] Hospitals and red tape have never made good bedfellows. In times of crisis, such as the one we are currently enduring, this fact is all the truer because it is the sick who are forced to pay the costs. An unwieldy bureaucracy has turned hospital administration into a nearly impossible task.

Inadequate, broken-down medical equipment, drug shortages, nonexistent laboratory supplies: The list is a long one. Hospitals operate under great stress. Some hospital budgets were cut 20 percent this year. Hospital directors, whose powers are very limited, in the final analysis, are powerless to remedy a situation that is steadily growing worse. "Good will exists, but we do not have the means to demonstrate it," we were told by the director of one very busy hospital in the suburbs of Algiers. Management of the CHU [University Hospital Centers] involves a veritable imbroglio of administrative red tape, which the patient cannot even imagine but of which he ends up being the victim. For example, general administrations have the task of running up to six CHU's each, which does not simplify the task of directors who are financially dependent on those very general administrations. As a result, hospitals are not directly managed by directors, who are required to have all spending approved by the administration. Simplifying

such procedures could not fail to improve CHU management, in the opinion of hospital directors, currently confined to the role of subordinate administrators.

Health care is very costly and with all the economic adjustments under way, the sector has been hard hit. Patient participation in medical expenditures is being studied, but might be highly disturbing to a public used to free medical care. Very expensive medical equipment, whether it is maintained or not, has not been replaced for several years and is on the verge of final breakdown. At the same time, department heads have no guarantee that their equipment will be replaced when needed, and hospitals whose equipment is still functioning properly know that a breakdown virtually means the end of that piece of equipment. Indeed, spare parts are no longer available and foreign suppliers are very reticent about future deliveries as a result of the stack of unpaid bills. Drugs are scarce for the same reason and those most commonly in demand are often the very ones missing from hospital pharmacies, most of which operate with but a three-month supply. Forced to go scouting for drugs in the East or the West, hospital directors face enormous administrative problems. Merely handling the most urgent daily problems has become a challenge. Faced with such financing and management problems, our hospitals cannot hang on for long. Patients are unable to understand what is happening, the care they receive is no longer satisfactory, and they feel increasingly wronged. Victimized as citizens and patients, they have no one to turn to except the doctor, who these days performs veritable miracles! However, the doctor is increasingly hard-pressed to provide proper care, which the sick person is unable to understand. His lack of understanding soon turns to anger. How much longer will health care be neglected? Must it be one of the victims of Algeria's health crisis?

Is there no way to halt the decline of the sector? These are all questions relating to a sensitive situation. Disease cannot wait, or cannot wait long!

Stressful Conditions at Clinic Described

92WE0596A Algiers ALGER REPUBLICAIN in French 3-4 Jul 92 p 7

[Unattributed article: "Sbihi Maternity Clinic; Cries of Distress to Give Birth..."; first paragraph is ALGER REPUBLICAIN introduction]

[Text] Dr. Abrous, head of the gynecology and obstetrics department, uttered (last Sunday) what amounted to a cry of distress concerning the conditions that, he said, have prevailed at the Sbihi maternity clinic, in Tizi Ouzou, for the past year.

Meeting with APW [Wilayah People's Assembly] committee members and his colleague and head of the Tizi-Ouzou CHU [University Hospital Center], Dr. Kati, Dr. Abrous described in moving terms the "tragedy" of the patients and of the physicians who work at the clinic: four of the seven specialists who worked there left the clinic in May and June 1991 to go into private practice; of the remaining three, who are working themselves to death, taking big risks, and causing their outpatients to incur risks, only one—Dr. Abrous—is an Algerian. According to the flowchart drawn up in interministerial decision No. 304, the Sbihi clinic should have 14 specialists, including one professor, 12 docents, and 11 assistant professors.

10,150 Hospitalizations in 1990!

The Sbihi clinic in Tizi Ouzou is the only one of its kind within a 100-km radius. It has 72 beds distributed among the maternity, high-risk pregnancy, gynecology, and intensive-care units.

Designed to handle 1,500 deliveries, i.e., the equivalent of the number of births in the Tizi Ouzou district, it recorded 6,497 in 1990, including 568 by Caesarean section; and 5,510 in 1991, including 616 by Caesarean section.

Eighty percent of the clinic's activities consisted of providing emergency public-health services, contrary to its stated purpose: specialized care, training, and research. In 1990, it recorded 10,150 hospitalizations, adding up to 24,406 days, and including 912 major surgery operations and 1,323 miscellaneous light surgery operations. According to statistics provided by Dr. Abrous, the clinic alone accounted for 35 percent of all hospitalizations at the Tizi Ouzou CHU, over 15,000 consultations, and 30,000 laboratory tests.

Dr. Abrous indicated that 17 percent of the 122 patients on record as having had a Caesarean section at the clinic during the first quarter of this year were not from the Tizi Ouzou wilayah; 13 percent came from Boumerdes which, he said, has four similar clinics. In this respect, he estimated the cost of the services performed for the Boumerdes wilayah at over 12 million dinars.

Three to Four Patients Sharing One Bed

Stressing the dysfunction of the Tizi Ouzou wilayah health units, all of which have gynecology-obstetrics departments with no specialists, Dr. Abrous estimated at 48 percent the evacuation rate from the various units, whereas patients from the territory served by the clinic accounted for only 8 percent. The worst is that there are three to four patients hospitalized for each bed, because the clinic serves 2 million people, the equivalent of the population of Algiers, which has some 20 hospital units of that kind, all well equipped and staffed with specialists.

"Here, all the equipment is dilapidated, dating back 10 years or more; the watchfulness threshold of the physicians, who work 80 hours per week, is near zero; the overload is such that we cannot disinfect the operating room according to standard practices. All our patients could sue us for offering them inadequate resources. For one year now, I have been writing to the people in

charge, drawing their attention to the unbearable situation that prevails at the Sbihi clinic. I get no answer," Dr. Abrous concluded as he retraced his long and painstaking negotiations with the wilayah in order to obtain housing for a medical team specialized in gynecology-obstetrics and ready to assume responsibility for this specialty at the clinic and at all of the wilayah health units starting on 1 July 1992.

Overload and Lack of Organization

The contract worked out at the end of these negotiations was nearly dropped. In the end, it was rescued thanks to the commitment of the P/APW [People's National Assembly], we were told by the same source, and this was confirmed by APW committee members.

Drawing the lesson from his observations, Dr. Abrous stressed: the overload at the clinic, which can no longer meet the increasing demand for health care; the lack of organization and efficiency of the wilayah's health units; the misallocation of part of the clinic's resources and skills to the benefit of neighboring wilayat, with no compensation; the heavy price paid by the wilayah's population in maternal and foetal mortality, as patients cannot be cared for in due time in specialized structures staffed by a competent personnel.

Inadequate Approach to Drug Shortages Alleged

92WE0596B Algiers ALGER REPUBLICAIN in French 12 Jul 92 p 6

[Article by M. S. Benlahreche, PEPM/JTSP (expansions not given) Constantine: "Another Approach to the Country's Medical Drug Problem"—first paragraph is ALGER REPUBLICAIN introduction]

[Text] Drugs are scarce, they are expensive. Patients and their families are very worried. For their part, health-care providers are facing serious problems, most of which have to do with an inadequate supply of essential products. Drug importers and producers seem to be facing financial problems, etc. Such are the factors of the drug "crisis" in our country. Although the situation is nothing new, it has now become dangerously acute. Patients are dying for lack of drugs.

Let's not dwell on the importance of drugs in Algeria. Certainly, this is an acute problem both for the citizens and for health-care providers.

At the Ministry of Health, the drug crisis is the subject of debates and a search for solutions: crisis management office, setting up an office of the National Drug Committee, etc.; the objective is to try and define a national drug policy. But until now, the only aspects considered have been:

- How to provide access to essential drugs?
- How to obtain an effective drug at an affordable price?

True, these approaches are necessary, but they are not enough. Other facets must be explored in order to shed light on the following question:

Once acquired according to the above criteria, are drugs used correctly?

At Prescription Level

How are drugs prescribed (doctors' prescriptions)? We know that there were 30,749 prescribing physicians in 1990 (source: MSP [Ministry of Public Health]). The consumption of prescribed drugs has been a huge priority. For instance, based on financial projections, the Social Security would have spent 3.25 billion dinars on consumers of pharmaceuticals (compared with 507 million dinars in 1988).

At Distribution Level

No study has been made of the relation between the distribution network and prescribing physicians on the one hand and, on the other hand, drug consumers.

With 215 hospitals and 2,240 pharmacies, 58 percent of which are privately owned (1990 figures), we can say that the distribution network is a very large one.

In this respect, we need answers to the following questions:
- How are prescribing physicians "honored" by (dispensing) distributors?
- Some drugs are sold without prescription. To what extent? We must evaluate it.

At Consumer Level

There again, no studies have been made. To what extent are prescriptions complied with? In other words, do patients comply will all the rules concerning the use of prescribed drugs?

Another phenomenon must be studied and brought under control: self-medication.

In Constantine, in a thesis presented on 6 June 1992 at the CHUC [Constantine University Hospital Center] for a doctorate in medical sciences, Doctor Lahcene Nezzal considered one of these aspects, that of prescription in the Constantine township. The objective of the study was to draw up a profile of drug consumption. The research focused on the following questions:
- Who delivered the prescription?
- What was the content of the prescription?
- To whom was it delivered?

The method used was a poll. The sample was obtained by systematic 1/25th sampling at all CNASAT [expansion not given] agencies in the Constantine township; 16,815 prescriptions were examined. They covered 5,668 recipients and listed 66,283 specialties.

The Results

1. Prescribing physicians: 98.76 percent of the prescriptions were written by physicians of all specialties; the remainder by doctors of dentistry and midwifes.

Accounting for only 16 percent of all physicians, private physicians wrote 60 percent of the prescriptions. On the average, these were the longest and most expensive.

With 84 percent of all physicians, physicians in the public-health sector and in university hospitals wrote only 40 percent of the prescriptions.

What about the length of the prescriptions?

Sixty-three percent were for four to 11 drugs, a proportion that is far too high considering that with more than four drugs the risks of contra-indication and drug-association effects become considerably higher.

2. Prescription content: two products out of five were designed to treat infections, or were antalgics, analgesics, or drugs against rheumatism.

For the 30-59 age group, gastroenterologic and neuropsychic drugs were the most often prescribed.

For the over-60 age group, drugs were prescribed mostly for noninsulin-dependent diabetes, high blood pressure, ulcers, and heart diseases.

3. Recipients: Women were again found to predominate as far as the number of prescriptions per single person in age group 30-59 was concerned.

Forty-three percent of the prescriptions were written for individuals of both sexes in the 30-59 age group.

New Measures Adopted Due to Drug Shortages

92WE0638B Algiers ALGER REPUBLICAIN in French 2 Aug 92 p 6

[Text] Problems obtaining certain pharmaceutical products and actual shortages have forced the pharmacy at the Annaba University Hospital Center (CHU) to exercise far stricter control of such products through a number of measures and provisions enabling the institution to continue its essential activities despite the glaring lack of certain drugs.

Actually, in the case of a number of so-called basic drugs such as those used to fight cancer, third-generation and even conventional antibiotics, anticonsulsives, corticoids, and a number of drugs used to treat tuberculosis such as isoniazide, the CHU pharmacy is suffering obvious shortages.

The same is true of reagents, indispensable for laboratory analyses, and spare parts for hospital equipment such as hemodialysis machines.

The shortage recently extended to cyclosporin, which is indispensable for persons who have undergone kidney transplants (to prevent rejection). The pharmacy recently obtained a year's supply, but it still faces the problem of persons undergoing hemodialysis, now a major concern.

If the situation is unsatisfactory in terms of drugs, it is even worse in the case of other disposable pharmaceutical products such as syringes, drains, transfusers-perfusers. Emergency rooms and obstetrics and gynecology departments (which sometimes handle up to 40 deliveries a night) are the heaviest users of these items (50 percent).

Several factors have contributed to the situation. Recent price increases for pharmaceutical products and delays in reimbursement by Social Security departments have tended to funnel demand toward health services. In addition, a number of products that are indispensable in treating certain diseases are not available elsewhere and the hospital pharmacy is forced to dispense them to out-patients.

Since in some cases the Annaba CHU provides care for all governorates in the northeasternmost region of the country, the pharmacy's estimates of its needs are often skewed by the influx of patients from other regions whom it cannot turn away.

Dr. Faket, head of the Ibn Rochd CHU pharmacy, notes the ever widening gap between demand, the high prices of pharmaceutical products, and the pharmacy's allotted budget.

Finally, delays in shipments and difficulties in making payment are contributing factors.

We have learned that only some 50 percent of the CHU pharmacy's orders are filled by its suppliers.

In order to handle the situation, Annaba CHU officials have developed a strategy targeting sectors in which certain pathologies could become worse due to a lack of drugs or other disposable products. Priority is thus granted to the treatment of certain diseases such as diabetes or cardiovascular conditions.

Among the measures taken, one should note that the CHU pharmacy has stricken from its orders a number of drugs used for "relief" and expanded its list of suppliers.

Actually, the pharmacy, which for years made its purchases exclusively from ENCOPHARM [expansion not given] (Constantine), began sending orders to ENAPHARM [expansion not given] (Algiers) years ago and also uses the National Medical Equipment Enterprise. However, "the situation remains precarious," Dr. Faket warns.

The pharmacy has also devoted its Overall Import Authorization (AGI) exclusively to the acquisition of products without which the CHU cannot operate normally.

These measures are matched by internal provisions dealing with the distribution of pharmaceutical products. For example, in the case of a number of "costly" or "rare" drugs, the pharmacy requires that the requester supply not only the signature of the chief physician and name of the patient hospitalized, but the complete dosage as well.

Concerning drugs used in psychiatry (which some ingest in order to get high), in addition to the fact that the pharmacy orders only those that are strictly essential, the identity of the person picking up the drug is written on the back of the order and the signature of the chief physician is required.

The head of the Ibn Rochd pharmacy also emphasized the spirit of mutual aid and solidarity existing between the various CHU's (Annaba, Constantine, Algiers). By helping one another, they have overcome a number of difficulties insofar as the availability of pharmaceutical products is concerned.

It should be noted that the CHU sees a "positive aspect" to the shortage in that it has required a stricter and more rational administration of supplies, in sharp contrast with years of plenty when drugs were actually wasted.

Finally, Dr. Faket notes that so far, "not one death has been attributed to the drug shortage."

Shortage of Doctors in Specialized Medicine

92WE0638A Algiers LE SOIR D'ALGERIE in French 10 Aug 92 p 3

[Article by Abderrahmane Hakkar: "When the Sick Die for Lack of Doctors"; first paragraph is LE SOIR D'ALGERIE introduction]

[Text] Public health in the governorate of Khenchela is experiencing a full-blown crisis mainly resulting from a lack of specialized physicians. With the exception of gynecology, no other area of specialization is covered and those in need of care are sent to the Batna CHU [University Hospital Center]. Most die on the way.

Khenchela (LE SOIR)—Despite all the efforts made by the provincial governor and Khenchela health director to have the Ministry of Health send specialists, the result so far is nil. The sick continue to be transferred elsewhere and the situation has deteriorated from critical to catastrophic. We have learned that officials at the Batna CHU have sent a telegram to the Khenchela director of health advising him that they will admit no more patients from this governorate.

The questions that must be asked are these: Why do specialists refuse to come to Khenchela to practice? Is a review of the civil status of physicians in specialized fields in order?

The second question may well be the key to the problem of all public health districts suffering from a lack of doctors.

Radioactivity Found Leaking in Oran Hospital

Accident Reported

92P40263A Algiers ALGER REPUBLICAIN in French 12 Aug 92 p 3

[Text] On Tuesday [11 Aug] radioactivity was detected leaking from Ward 10, which cares for cancer victims at the University Hospital Center [CHU] in Oran.

According to the civilian rescue organizaion, which quickly arrived on the scene, the accident occurred in the basement of the ward where the cobalt-60 therapy unit used for treating patients was located. Medical personnel were evacuated and a security zone was established around the building.

Personnel from the civilian rescue organization will have to take measures to determine the amount of radioactivity leaked. The exact causes of the incident are not known at this time.

Leaks Under Control

92P40263B Algiers LE SOIR D'ALGERIE in French 15 Aug 92 p 3

[Text] According to official sources today, radioactivity that was leaking Tuesday from the cancer ward at the university hospital in Oran was stopped.

It was made clear that a minimum amount of radiation, on the order of 0.33 billion [as published] produced no casualties.

It was noted that these leaks were due to the aging equipment in service since 1976, and specifically to the failure of a cobalt generator that had separated from its protective shield.

The director of health from the Oran wilaya said that specialists from the National Nuclear Institute (IN) in Algiers who rushed to the site were able to repair the generator and make it operational again.

Hospitals in Khenchela Said 'Alarming'

92WE0655A Algiers EL WATAN in French 16 Aug 92 p 12

[Article by Hakkar Bachir: "Khenchela: Hospital Crisis"—first paragraph is EL WATAN introduction]

[Text] The three hospitals of the Khenchela wilayah—Khenchela, Kais, and Chechar, serving an estimated 350,000 people—find themselves in a most alarming situation essentially due to the lack of specialists, medicines, surgical thread, hypodermic needles, radios, and blood bags.

Many patients die, sometimes before reaching the hospital to which they are evacuated: Batna (100 km away) or Constantine (160 km); these two CHU's [University Hospital Centers] systematically refuse to admit any

patient from Khenchela. Because beds are scarce, these poor patients suffer as they are driven here and there, with no hospital managing to admit them and allay their suffering. Every time, we are told that so-and-so died on the way, either in front of one of these two hospitals, or on the way there when his condition took a turn for the worse. We wonder: what happened to moral conscience? Where did human warmth go?

In our country, hospitals refuse to admit patients, although this could result in legal proceedings against the person who turns down the patient or patients, in accordance with article 141 (paragraph 8) of the Algerian Penal Code that provides, among other things, that: "Those who refuse or neglect to provide assistance, although they are obliged to do so under the law, in cases of accidents and others, shall be liable to public prosecution." On the other hand, in Mediterranean countries, for a mere illness transport by helicopter is provided, with accompanying physicians. In Khenchela, there is simmering discontent among patients and among the people; the situation is the same in the Kais and Chechar districts, and patients share the same worries.

A DSPS [Directorate of Health and Social Protection] official, Mr. Bouzidi, told us that one man had decided to go personally to the Ministry of Health, where he would settle down and suggest to every specialist coming through the door to go to Khenchela and take care of patients. And to say that the Khenchela hospital used to provide health care for the entire local population, estimated at over 80,000, plus the remaining 21 communities! It did so thanks in particular to the Polish mission of specialists (general surgery, otorhinolaryngology, pediatrics, and gynecology) who have now left and are sorely missed throughout the wilayah. The three hospitals are experiencing endless trouble, which prevents them from fulfilling their mission, while the population keeps increasing, especially those who come from mountainous areas.

Acute Crisis

Inside the Khenchela hospital, we personally witnessed the transfer of a seriously ill woman: the procedure involved making out two transfer orders to Batna; if Batna turns her down, she will again be transferred to Constantine; but how will she fare during the trip?

Mr. Messelem, of the DSPS in the Khenchela wilayah, finds that "the economic crisis that the country is experiencing has had a huge impact on budget appropriations for health care facilities," and that therefore, "as you observed, we are experiencing acute crises concerning the supply of medicines, reagents, and accessories. To make things worse, our wilayah blatantly lacks specialists in essential disciplines. For instance, we must deplore the number of daily evacuations to neighboring CHU's (Batna, Constantine), not to mention the others (Setif, Annaba, and Algiers); surely, the excessive number of patients' evacuations toward these poles of attraction force the latter to direct seriously ill patients to other health-care facilities, but this practice just makes the evacuated patients' conditions worse, as it affects their chances of survival. Our health sector, which was initially meant to admit these patients, actually turns into a transit center, which easily accounts for the unfortunate number of deaths on record.

"Such a serious problem can be solved only by urgently dispatching a team of specialists in all disciplines to take care of the many problems that worry our people so much," he stated. In the entire Khenchela wilayah, there are only three gynecologists—two of them in Khenchela, the other in Kais—and one Bulgarian surgeon, now on vacation in Bulgaria; as a result, the three hospitals are without any specialist.

"Our Patience Is Exhausted"

The Khenchela DSPS maintains that it can get specialists because the necessary means (infrastructures, housing) are available throughout the Khenchela wilayah. "The managers of health-care facilities experience huge difficulties with routine hospital management where they do not know which way to turn and, at this rate, with these expenses, no automobile fleet will last (gasoline allocations, lack of spare parts).

"In addition, the lack of medicines and accessories, e.g., blood bags, thread, hypodermic needles, radios, medicines, makes this unfortunate situation still worse." Concerning hypodermic needles for out-patient care, "a patient is better off purchasing them from programs against sexually transmitted diseases (AIDS, etc.)," the DSPS official added.

The wali has approached the Ministry of Health and the Directorate of Health several times, but all efforts were in vain.

The danger mark has been reached, for how can we imagine that, for three large and well-equipped hospitals, the responsible authorities could not find a solution to remedy the situation.

We also met with several patients who told us: "Our patience is exhausted; we can no longer accept that, each time, patients will come back from Batna or Constantine in a coffin; the people responsible for hospitals must bear full responsibility for the deaths of the patients.

"We are appealing to the minister of health to assign specialists to these three hospitals, for we are fed up with having to make long and expensive trips, 100 to 650 km, to visit someone who is ill or has been injured," one of them told us, adding: "We don't mind starving in order to have specialists to take care of us and our sick, our crippled or invalid children," and "no one took pity on country people who come from the high mountains."

Another added: "We just might organize a peaceful march on the Ministry of Health, although it is a long way—650 km—from Khenchela to Algiers. We suffer and go on suffering, but no one cares about our plight,

especially considering that there are so many diseases in our regions, for instance, liver cirrhosis, prostate conditions, cancer, diabetes, brucellosis, rabies, kidney and heart failures, etc."

The emergency ward is crowded from dawn to dusk, especially around nightfall at the consulting room of the physician on duty; children, women, old people shuffle about with groans of pain. As soon as the physician has examined them, they cannot wait for the pain to go away, but must go elsewhere, to the pharmacy that remains open, in order to buy a disposable hypodermic needle.

The physician on duty, Mr. Khellil, told us that 100 to 150 patients are examined daily for various complaints, thanks to the dedication of the nurses; the problem, however, is with people injured in traffic accidents, appendicitis, fractured or sprained limbs, all of which must be operated on location.

Even the physician on duty manages to more or less write out a prescription, after checking if a particular medicine is available, which means that the medicine inventory is far from complete, which means that patients are treated according to the medicines available at the pharmacy; many times the physician is told that there are no medicines, that the stock is exhausted.

We can only regret that, since the Polish mission left, nothing has been done to meet the expectations of the wilayah's 350,000 inhabitants. The situation is critical; patients are still waiting for a ray of hope; and the ball is in the health minister's court.

Radiation Leak at Oran Hospital Detailed

92WE0665A Algiers REVOLUTION AFRICAINE in French 20-26 Aug 92 pp 41-42

[Article by Bensalem Brahimi: "Cobalt 'Bomb'; You Can't See the Forest for That Tree"; first paragraph is REVOLUTION AFRICAINE introduction]

[Text] Summers at the Oran CHU [University Hospital Center] are decidedly very, very hot. This time, it is ward No. 10, the "radiotherapy ward," that is acting up. It might have cost many human lives if exposure had occurred. A mere resourcing operation of the "cobalt bomb." But the word is that the failure could have been avoided if the people in charge had done their job.

Tuesday, 11 August 1992. At 11:45, ward 10, while a patient was on the treatment table, the control console was off...in the "red" when the two warning lights (red and green) started flashing simultaneously. Was there any panic? "Not at all! We were used to this type of technical problem, except that this time the cobalt source did not retract into its cladding. We whisked the patient away and closed the door. Opposite, there was the rod indicating that the source was 'out.' 'The rod is stuck,' the technician kept repeating. Then, we alerted everybody."

Several attempts made by the technicians failed. Faced with such a situation, the CHU top management explained, in order to protect patients and staff, it was deemed useful to call on the civilian rescue organization to provide protection against radiation if needed. The civilian rescue organization, "which we congratulate," Mr. Amri, the CHU general manager emphasized, called on the specialized departments of the GTP, i.e., the Large Oil Works of Arzew, which rushed their technicians on location. Measures were taken both inside and outside the unit. The location was immediately isolated, while no radiation could be detected outside. Messages were sent to the maintenance technicians in charge of the facility. For the time being, surrounding conditions are not serious. The room, the hospital staff said, is lined with lead and patients and staff remained on location.

"Nevertheless, to prevent any possible exposure, we deemed it useful," the Oran CHU general manager pointed out, "to close the premises where the source is located. The next day, a team of technicians from the Research High Commission (HCR) was sent on location and was able to retract the source into its cladding. There is no longer any danger."

Sure, the technicians working at the ward retort, but the failure would not have occurred if the "resourcing" had been done. "Normally, it must be done every five years. Nothing has been done so far."

True, the dose rate was low; true also, it was possible to treat patients, provided, of course, exposure times were "increased." Quite formal when it comes to technical matters, a young operator told us: "the current dose rate is 26 grades per minute." But this has nothing to do with form. About 30 patients are waiting. What is to be done? Hundreds, even thousands of appointments were therefore canceled. Whereas Algiers has five or six machines—"Ain-Naadja," "downtown Blida," etc.—Oran, or rather the entire west region, is doomed. "See for yourself, we have only one machine.... Thank God, even if there was a leak, the equipment is well protected and exposure cannot extend beyond one meter around the source..." This being said, the general manager mentioned the fact that he cannot solve every problem in a mere one half year; that if the management of a hospital of this size is very much like any economic activity, he admits that he has only limited resources.

"Everybody has to play the game. Everybody must make an effort." His call to order is a way of saying: "I have the advantage that there is a consensus concerning my appointment. I have set up the commissions issued from the Scientific Council. I am just an administrator...

"It is true that I have spent 30 years in health departments, but what can I do when patients are not taken care of and 8 percent of the equipment is not working? Actually, until we have special radiotherapy equipment, foreign currency is going up in smoke when we have to send patients to be treated abroad."

Apart from that, in this hospital, you can feel that there is renewed confidence after several years of waste, even though the construction of a new radiotherapy center is not going to happen overnight (centralized operation for a budget of 15 billion centimes). The other hope is that objectives will be reviewed, and there is already some talk of the forthcoming acquisition of special radiotherapy equipment financed by the CNASAT [expansion not given]. Finally, several dossiers have been handed over to Mr. Amir and will start to materialize any time now; they include the creation of a psychology center, the forthcoming opening of a physical therapy center, and the overhaul of a neurology center. Although the Oran CHU is determined to restore order in its "village," the picture is certainly not an idyllic one. "A poisoned gift, which we inherited," the CHU general manager acknowledged, admitting defeat for the time being. The rest, he believes, is a matter of time.

BANGLADESH

Health Minister on Diseases, Other Matters

92WE0630 Dhaka THE NEW NATION in English 22 Jul 92 p 3

[Text] A total of 7,224 people have been attacked by chicken pox up to May this year, Health Minister Chowdhury Kamal Ibne Yusuf told parliament on Tuesday, reports BSS.

Replying to Sharfuddin Khasru, the Minister said there are, however, no smallpox patients in the country.

In reply to Shahadatuzzaman, the Minister said the government has no stock of ambulance at present. The same would be provided in phases if it is provided as grant by any donor country or agency, he said.

The Minister also informed the House that there are 2,661 posts of health assistants in the country. The government has a plan to fill up these posts and measures are being taken in this regard, he told the questioner Principal Nazrul Islam.

Replying to A.M. Reasat Ali, he told the House that the government is providing food to the patients in the government hospitals.

The rate of food allocation to free bed is Tk 18 daily per patient Tk 22 for paying bed daily and Tk 25 for cabin patient.

The financial allocation is made in accordance with the approved beds in the hospitals, the Minister said.

Replying to advocate Khairul Enam, he said government with ADB assistance has undertaken repairing, renovation and expansion of six district hospitals. Laxmipur Sadar Hospital will be repaired and expanded during this financial year with an estimated cost of Tk 3 crore 38 lakh 61 thousand, he added.

EGYPT

Hospital Completed, Others Planned

92WE0543A Cairo AL-AHRAM AL-DUWALI in Arabic 11 Jun 92 p 5

[Article by 'Abd-al-Hadi Tamam: "Plan Contains 167 Million Pounds for Health Service"]

[Text] Construction and equipping of the City of Peace General Hospital in Cairo will be completed this month. At that point, it will be opened to serve the area's residents. The hospital was erected on a five feddan area, costing 5,000 Egyptian pounds.

The new five-year plan has earmarked 167 million pounds for the construction and development of general hospitals, in addition to establishing two hospitals for fevers, three hospitals for psychiatric illnesses, an eye clinic, and a medical center.

The governor of Cairo, 'Umar 'Abd-al-Akhir, asked Dr. Kamal Murad, the undersecretary of the Ministry of Health in Cairo, to expedite completion of the Peace Hospital's outpatient clinic, in order to serve the people. The governor stressed that the new plan was aimed at raising the level of health service, especially in areas of rising density of population and areas of new expansion, where these necessary services are lacking.

The governor added that the plan also included establishing and developing five general hospitals, six specialized hospitals, 16 medical centers, 10 child care centers, five outpatient clinics, and 16 school units. This plan also includes selecting new sites in the various quarters of Cairo to establish 22 medical centers. It will also raise the efficiency of school units, in order to absorb increased numbers of school students.

Campaign Against Rheumatic Fever Launched

92WE0543B Cairo AL-AHRAM AL-DUWALI in Arabic 12 Jun 92 p 7

[Article by Faruq 'Abd-al-Majid: "National Program Implemented To Fight Rheumatic Fever Among Children"]

[Text] The minister of health, Dr. Muhammad Raghib Duwaydar, announced that the ministry is currently implementing a national program against rheumatic fever and rheumatic heart diseases in Egypt. He said that studies and research have shown that the percentage of heart diseases among age groups from five to 15 years ranges between 4 and 10 percent. A health survey, which was conducted on a sample of elementary pupils in the Cairo Governorate, also confirmed an affliction rate of 9 percent.

The minister emphasized that complications from rheumatic fever causes between 50 and 60 percent of the heart surgery performed in general, central, and university hospitals and institutes.

This campaign is aimed at lessening the rate of affliction and disease complications among children, reducing the death rate by 50 percent, and calling attention to rheumatic fever as one of the important diseases about which health authorities must be advised. This can be done through the application of a precise system of early and rapid diagnosis and treatment of rheumatic fever cases. A system must also be set up to limit the infectious spread of any case and to make inoculation with penicillin universal in all rural health units. The minister added that this measure proved 99 percent effective in preventing affliction, in the first stage of the national program against rheumatic fever, which was conducted in al-Jizah Governorate, This campaign is currently being applied in the Governorates of Cairo, Alexandria, al-Fayyum, Suez, Port Said, and Ismailia. It will later be universally applied in all governorates.

World Bank Grants Easy-Term Loan for Reform, Bilharzia

NC3007111892 Cairo MENA in Arabic 0606 GMT 30 Jul 92

[Text] Washington, 30 Jul (MENA)—Egypt and the World Bank have signed two agreements according to which Egypt will receive easy-term loans amounting to more than $36 million to be used in implementing the economic reform program and combating bilharzia.

The two agreements were signed by Egyptian Ambassador in Washington Ahmad Mahir al-Sayyid and Harriender Coley, deputy president of the World Bank [name and title as received].

The first agreement stipulates that the World Bank will grant Egypt a loan of $9.2 million with easy terms to be used to implement the economic reform project to develop banks and businesses and help the transformation to the private sector.

The second agreement stipulates that the bank will present a loan to Egypt amounting to $27.4 million, also on easy terms to be used for combating bilharzia.

INDIA

Pharmaceutical Firm Joins With Dutch Multinational

BK1308051092 Delhi INDIAN EXPRESS in English 4 Aug 92 p 12

[Excerpt] NEW DELHI - Max India Limited, a Bhai Mohan Singh Group company, is entering into a collaboration with Dutch pharmaceutical giant Gist Brocades for a Rs 30 crore joint venture project to manufacture bulk drugs and intermediates.

This is the first time in the recent years that a drug multinational is tying up with an Indian firm to manufacture sophisticated drugs.

Multinational drug companies have been shying away from India as the Government's drug pricing was considered unattractive.

The tie-up with Max has been finalised after a strong competition for the collaboration from Max India's sister concern, Ranbaxy Laboratories, and Lyka Laboratories, which is also engaged in the manufacture of penicillin-based bulk drugs.

A 3-member top management team led by Max managing director Manjit Singh is in Amsterdam to finalise the terms and conditions of the venture. The project would specialise in the manufacture of critical penicillin-based bulk drugs like 6-ADA and 7-ADC and would have a thrust on export of these drugs to third countries.

Max is a leading manufacturer of bulk drugs and intermediates as well as penicillin-based drugs in India while Gist is the biggest manufacturer of these kind of drugs in the Netherlands.

Sources said Max was particularly keen on this tie-up because of the Dutch firm's long-term export plans and it was necessary to have a global partner to have any kind of a foothold in the global markets.

Max's experience in this field would make things much easier. Apart from this, the collaboration could also help Max to reap the benefits of the single European market, the sources said.

At the same time, its efforts in enhancing exports through its own set-up had not been according to the expectations despite the fact that there was a substantial demand for penicillin-based bulk drugs abroad.

The company's agents in Hong Kong and other nodal points had also failed to produce results. Thus, it decided to enter into a strategic tie-up, which would both boost its exports and improve the technology and product base. [passage omitted]

Audit Report Indicts Medical Research Council

92WE0531A New Delhi INDIAN EXPRESS in English 17 May 92 p 19

[Text] New Delhi: The Indian Council of Medical Research (ICMR) has achieved virtually no results in its family welfare and tribal health projects, and spent over Rs. 2 crore in malaria control without bothering to coordinate its activities with central or state agencies, says an audit report.

ICMR did not achieve any "fruitful results" in its project to evaluate and improve the quality of health services in primary health centres, says the report of the comptroller and auditor general (CAG).

Similarly, it spent over Rs. 4 crore on a project on contraception, but the benefit "was not on record," the CAG report says.

Out of the 26 human research reproduction centres (HRRCs) set up by ICMR for contraceptive testing, clinical trials were conducted on only one or two.

The council also did not take any action on experts' recommendations that it should broaden the scope of its research by including the behavioural and psycho-social aspects of family planning, market research on distribution and sale of contraceptives and studies on infertility.

The CAG report strongly criticised ICMR for lack of co-ordination with central and state agencies in its malaria research and control programmes, which has led to considerable duplication of work.

ICMR did not utilise the vast infrastructure available with the Municipal Corporation of Delhi (MCD) for malaria control, which includes some 10 zonal health units, 310 fever treatment depots, 122 malaria clinics and funds worth Rs. 5 crore. The council ended up wasting Rs. 1 crore over these facilities, the CAG report says.

The ICMR malaria project was confined to a small area in Shahdara zone of Delhi although the entire Shahdara zone was mosquito-prone. It also included some areas in South Delhi with comparatively little malaria problem.

ICMR also did not co-ordinate its activities with the national malaria eradication programme (NMEP) which already has large funds earmarked for malaria control.

In Madhya Pradesh too, ICMR's malaria research centre (MRC) failed to coordinate with NMEP, with the result that instead of its original aim of malaria research, it worked on malaria control, a role assigned to NMEP and the State Health Department.

A project on tribal health care made no progress because ICMR conducted research on only basic and academic interest, but not relevant to the health needs of the tribals.

Over Rs. 10 lakh have been spent on four major studies on health disorders in tribals, which were finally discontinued with no benefit on record.

Similarly, four psychological research centres set up by ICMR at a cost of over Rs. 24 lakh in 1988 were wound up this year due to "lack of satisfactory progress," but no reason for this lack of progress has been given, the CAG report said.

Reports of studies on management of rheumatism, on which Rs. 76 lakh have been spent, have not been received even nine years after work started.

Apathy Toward Kala Azar Exploited by Quacks

92WE0633A Calcutta THE TELEGRAPH in English 21 Jul 92 p 5

[Article by Faizan Ahmad]

[Text] Manhar (Vaishali), July 20—Sorcerers and quacks are doing brisk business in the kala azar-affected districts of Bihar.

Frustrated by the government's apathy towards the victims of the dreaded disease, villagers are increasingly turning towards ojhas (exorcists) and self-proclaimed "doctors," some without even a practising license.

Many of these patients, mostly illiterate and superstitious women and children, pay these practioners of witchcraft and quacks only to be harassed and at times even tortured.

Many of the villagers are convinced that the "curse" can only be lifted if the proper sacrifices are made to propitiate the Gods.

Perturbed by the state of affairs, Mr. Raghupati, a social activist who runs the Samta Gram Seva Sansthan, a voluntary agency, has prepared a video film to educate the villagers about the disease and its prevention. The 12-minute film also warns the villagers against falling prey to superstition.

But the effect of the film, however, has been marginal at best. The screening of the film at Chak Jamal, where the disease has claimed at least one member from each family, failed to dissuade the villagers from sacrificing 50 goats to win back the favour of the gods.

Mr. Raghupati, who was present both during the screening of his film and the subsequent sacrifices, lamented that the people were forced to turn to the gods as they had lost their faith in the government's ability, to help them.

The villagers echoed his sentiments. They also pointed out that misconceptions about the disease had added to the confusion. For instance, many believe that the disease is incurable, while others insist that stopping treatment midway can be fatal.

"What should we do if we don't turn to God?" asked an agitated Durga Singh, who spent a small fortune for the treatment of his sons. "Doctors are not available. Medicines are even scarcer..."

The few government doctors in the area force the patients to visit their private clinics. They charge a heavy fee, apart from insisting on unnecessary tests and giving injections of glucose, saline and other placebos.

A father broke down as he placed his son, suffering for the past two months, on a cot in front of the local Kali temple. Soon the child was joined by 25 other children, their faces pale, stomachs swollen and their bones visible through their skin.

"They are the victims of daivi prakop" (curse of the goddess) said an elderly woman. The children would be fed meat of sacrificed goats in the hope of a cure, she added.

The Number of Kala Azar Victims in Bihar Over the Last Decade, According to a Survey Conducted by the Calcutta-based National Institute of Communicable Diseases

Year	No. of patients	Casualties
1981	14,115	35
1982	11,120	35
1983	11,831	128
1984	12,983	67
1985	12,029	37
1986	14,029	47
1987	19,179	77
1988	19,981	130
1989	30,653	466
1990	54,274	590
1991(Up to October)	50,725	725

The state government, however, insists that it is taking all the necessary steps to check the menace. The health minister, Mrs. Sudha Srivastava, recently announced in the Assembly that Bihar would be free from kala azar "in the next three years." DDT was being sprayed extensively in the 21 affected districts to kill the sandfly, the main carrier of the disease, she added.

But the villagers and even local doctors said that even after two rounds of spraying, the sandfly was still active.

Dr. R.P. Singh, acting medical officer of the public health centre (PHC), Sahdei, said it was difficult to diagnose and treat patients who had been attended to earlier by quacks. Denying that there was a dearth of sodium stibo-gluconate (SSG), one of the main medicines used to treat the disease, at the PHC, he said a camp clinic had been opened at Chak Jamal to save the villagers the trouble of travelling to distant places for treatment.

According to the figures supplied by Dr. Singh, there were only 44 afflicted persons in the village. Of these, 37 were under treatment, 19 had been cured, and three showed resistance to SSG. There were five deaths.

The villagers, however, maintain that the number of affected persons was at least four times higher, and hardly any of them had been fully cured. In the last month, over 60 patients were taken to Patna for treatment from this village alone, they pointed out.

They also complained that none of the five doctors at the Sahdei PHC attended the centre regularly. The medical officer-in-charge, Mr. Shiv Shankar Rai, was camping at nearby Desri, where he has a private practice. He also keeps the hospital vehicle there for his personal use.

The other doctors stay at Darbangha, Muzzafarpur and Patna, and are rarely seen at the health centre. When the health minister, Mrs. Srivastava, visited the PHCs and Sahdei and Desri recently, she was surprised to find no trace of a doctor at either of the clinics.

Bihar Kala-azar Epidemic Spawns Graft

92WE0651A Madras THE HINDU in English 3 Aug 92 p 11

[Text] Patna, Aug. 2—Entire villages in Vaishali district of north Bihar have been struck by the Kala-azar disease. The people cannot marry off their sons and daughters, sell off their meagre lands and move away to other areas. They are poor too and cannot afford proper medical treatment. To make things worse, the State Government is indifferent to their plight.

In one such village—Chakjamal—all the households are afflicted by the dreaded disease and a sizeable number of the victims have turned resistant, needing the second line of treatment which is quite expensive. Mr. Nagdeo Singh, who has four children, told this correspondent that he borrowed Rs. 20,000 for treatment at the Patna Medical College Hospital, virtually reducing himself and his wife, Yashoda Devi, to bonded labour. Yashoda Devi, who accompanied her sick husband and children to the Patna Medical College Hospital, said: "Except for the Kala-azar drug supplied by the hospital, we had to buy everything—35 bottles of normal saline, syringes, needles, cotton and spirit—from the market."

Prabhu (12), son of a landless labourer, underwent treatment at Patna for which his father had to raise Rs. 3,000. The same was the case with Radhika Devi, yet another landless person, who had to raise Rs. 5,000 for getting her two children treated for the disease. One woman, Nago Devi, had to mortgage her small holding of about half-an-acre to an affluent farmer to get her two sons treated. None of these patients have been cured so far. Zalim Singh had to mortgage his small plot of half-an-acre to get his five children treated at Patna. In all he had to spend Rs. 52,000. "We are as good as dead," he said.

Fleeced by Doctors

Janaki Devi, whose husband and son died of Kala-azar, says: "We were cheated and fleeced by doctors who charged Rs. 120 for bone marrow test which is supposed to be free. Eleven persons who were suffering from other ailments but treated for Kala-azar without proper diagnosis by unscrupulous block doctors died in the village and there are many more dying."

Another woman undergoing treatment too said that the Government doctors demand and extort bribes.

Among the victims were a 25-year-old woman, who was administered 25 injections of the Kala-azar drug, and two children below five years.

Chakjamal village has altogether 250 households. One resident Mohan Singh, has so far spent Rs. 10,000 for the treatment of his daughter, without any hope of cure. One of the daughters of another resident, Yadu Singh, died

on way to Patna for treatment. Nagina Rai, a chronic case, and Arjun Singh (15) of neighbouring Azampur—Khorumpur village, who has been given 184 injections of the primary drug—stevanet—are inching their way to death. There have been 78 fresh cases of Kala-azar in Chakjamal village since January this year.

Inadequate DDT Spraying

Mr. Rameshwar Singh of Chandrapura village said there had been no spraying of DDT to eliminate sandflies, which are the primary carriers of the disease. Mr. Mahendra Singh of Chakamgola village said there had been only partial spraying in some villages without the supervision of the Health Department and the DDT used was so sub-standard that it was not effective even for 24 hours.

A doctor, Shiva Shankar Rai, quoting official figures, told this correspondent that between January and July, 1992, there have been 469 cases of Kala-azar in Shadeo Buzurg village and 16 deaths. In Saharia, Dharampur and Nayaganj villages there were 200 cases.

In Vaishali district as a whole there were 5,159 Kala-azar cases of which 1,950 had turned resistant and 117 deaths.

A survey conducted recently by the Rajendra Medical Institute, Patna, revealed that spraying was far from satisfactory in that it had failed to develop resistance to P. Argentipes (sandflies) to DDT.

Altogether, 30 districts in Bihar have been affected by Kala-azar, nine districts partially. Vaishali, Godda, Samastipur, Godda [as published], Muzaffarpur, Sitamarhi and Darbhanga are the worst hit. According to a survey conducted by the National Institute of Communicable Diseases some time ago, there were one lakh cases of Kala-azar, 70,000 of which were concentrated in four districts of north Bihar. But the disease has now assumed epidemic proportions gripping almost the entire State with 16,000 to 18,000 fresh cases reported from all the badly affected areas of the State. Towards the end of 1990, the State Government had stated that at least one lakh people were stricken. As this figure did not include patients being treated by private physicians, the number was much more. By the end of October, 1991, it was conceded by both the State and the Union government that over 2.5 lakh persons in Bihar were in the grip of the disease with a sizeable number turning resistant and needing the second line of treatment.

The number of patients and the toll has since registered a steep rise. Realising the gravity of the situation, the Centre sanctioned drugs and DDT worth Rs. 28 crores for intensive spraying over a period of four years.

CM Yet To Visit Affected Areas

The Bihar Chief Minister, Mr. Lallu Prasad Yadav, has not yet visited the Kala-azar ravaged villages of Vaishali district.

Dr. B. K. Singh, the Kala-azar officer of Vaishali district hospital, says the Government has made no provision for treating secondary infection developed in the course of treatment. Dr. C. P. Thakur, emeritius Professor of Medicine, Patna Medical College Hospital, who has actively involved himself in the war against Kala-azar and has been visited the affected villages and treating patients free of cost, said many patients have died of wrong diagnosis. He wanted the Government to import in bulk the new drug Amphotericine-B which has less side effects for treating the dreaded disease.

Poor Care, Graft in Private Hospitals Noted

92WE0650A Bombay THE TIMES OF INDIA in English 10 Aug 92 p 1

[Text] The Times of India News Service

- Take your pick. A clean, Rs 950-a-day-plus airconditioned room which must be booked a week in advance through society contacts. Or a Rs 90-a-day bed, one of five in a foul-smelling 200 sq ft nursing home in which the kitchen platform is the operation table.
- Choose your disease. Because the doctor, with his perfect bedside manner, will not diagnose it before putting you through a circuit of seven consultants and setting you back by Rs 6,438. Or do you want one of the 14 infections untrained nurses can pass on to you from poorly sterilised surgical gloves washed with handtowels in the same vile bathroom where patients and staff relieve themselves?
- Draw blood you own. And pay Rs 825 for transfusing it to your sister. Or buy it from the market—i.e. the nearest private hospital which is too patient-friendly to want to ask questions about its origins.

These choices are typical of an affliction that is spreading all over urban India—a virtually uncontrolled growth called private hospitals and nursing homes. Such registered institutions, estimated to number about 5,500, accounted for 30 per cent of all hospital beds in the country in 1988. They represented 56 per cent of the number of hospitals, up from a mere 19 per cent in 1974.

As public investment in the health sector has stagnated in the past one-and-a-half decades—it dropped in some states by as much as 60 per cent—private hospitals and nursing homes have multiplied seven to ten times, whether in Calcutta or Madras, Pune or Chandigrh, Nagpur or Guwahati. With doctors and the drug industry, they form the base of the Rs 20,000 crores-a-year private health care system.

The boom has occurred not so much because private hospitals are better-equipped, more efficient and manned by more qualified and less callous staff, as because public hospitals have simply failed to keep pace with demand.

Barring honourable exceptions—themselves largely unaffordable for the middle class—private hospitals and nursing homes provide a quality of health care that is

distinctly inferior to but considerably more expensive than that provided by overcrowded and fund-starved public hospitals.

Private services "have many features...inimical to patients and a balanced development" of health care, says Dr Anant Phadke, a health policy specialist working for medico friends' circle.

Typically, the bigger private hospitals are run for profit by community and family trusts and increasingly resort to dubious practices such as employing unqualified allopathic junior doctors and overcharging patients for what should be legitimately part of the bill they pay.

The bulk of the smaller ones are run by medical entrepreneurs out to make a fast buck or eager to recover the Rs 15 to Rs 30 lakhs spent in capitation fees in medical colleges to acquire a degree.

According to official surveys, most private hospitals do not meet minimum standards of space, hygiene or staff. Two-thirds are staffed by doctors employed in public hospitals. It is common for such doctors to lure patients into their private clinics, while misusing public facilities. Many public hospitals which employ part-time honorary consultants are also vulnerable to manipulation.

The unannounced, yet steady (if never debated) privatisation of health care has involved invisible costs too. Private hospitals are given favourable treatment in respect of siting (even in highly congested localities), water, land and electricity rates.

For instance, in Bombay, private hospitals pay only a fifth of the top commercial rate for water, and about half the power rates. The floor space index is relaxed 100 per cent for private hospitals. Besides, they get exemption from customs duty on imported equipment. In return, 40 per cent of their use is meant for free patients. In reality, the proportion rarely exceeds a token 5 or 7 per cent.

Private hospitals are even less accountable to the public than government-run institutions. They are usually linked to powerful networks of specialist/consultants and GPs (who take illegitimate commissions) and to influential people.

If they have, typically, not had as much bad press as public hospitals, it is primarily because of fear of defamation, patients' reluctance to name names and lower expectations from commercial institutions.

The case for regulating private hospitals is now increasingly recognised by our courts. Doctors are still making a last-ditch effort to avoid being sued under the Consumer Protection Act. However, the trend does not favour them.

IRAN

Pharmacies Lack Serums To Combat Diarrhea

92AS1205Z London KEYHAN in Persian 2 Jul 92 p 2

[Text] While the number of those suffering from infectious diseases, especially diarrhea, has increased in the country with the severe hot weather of Tir [22 Jun-22 Jul] in Tehran, the necessary serum for injection into patients suffering from diarrhea is hard to find in most cities. Most pharmicies respond negatively to customers regarding serums that must be rapidly injected into patients suffering from dehydration. In provincial cities, so far, dozens of people have lost their lives because of the unavailability of serum, and often quarrels and even fights erupt between pharmacists and relatives of patients.

IRAQ

Health Minister Addresses WHO on Effects of Embargo

JN0705170892 Baghdad INA in Arabic 1350 GMT 7 May 92

[Text] Geneva, 7 May (INA)—Iraqi Health Minister Dr. Umid Midhat Mubarak has stressed that the unfair economic embargo imposed on the Iraqi people and the aggression against Iraq have caused a great imbalance in implementing the Iraqi Health Ministry's plans and health programs to combat disease and reduce the infant mortality rate.

In a speech addressing the 45th session of the WHO, currently meeting in Geneva, the health minister said that taking care of the mother and child and reducing mortality rates was a consistent policy adopted by health authorities in Iraq, mobilizing the masses and nongovernmental organizations to reinforce health awareness and implement the expanded vaccination program in the country. However, he said, the unfair economic embargo on Iraq has caused a noticeable increase in mortality rates for children of different age groups due to malnutrition and the scarcity of medicine and medical requirements.

Dr. Umid Midhat Mubarak noted that Iraq has absolute faith in human principles and international norms for which everyone is working. Iraq has strived to provide a better future for each child but is still suffering greatly from the harsh embargo which has adverse effects portending of serious dangers for health services.

He added that despite the exclusion of medicine, medical equipment, and food from the embargo on Iraq, the practical implementation of the UN resolution pertaining to this issue has imposed a comprehensive embargo that did not even exclude medicine purchased with hard currency. Iraq, he said, did not receive the medicine it paid for prior to 2 August 1990 because of

the restrictions imposed by some governments on commercial transactions with companies that manufacture these medicines.

He said that the situation created by [word indistinct] the comprehensive destruction of the infrastructure and the scarcity of medicine in Iraq has resulted in the spread of many transmittable diseases and in new diseases among the children of Iraq.

The health minister added that despite the reports of the United Nations and other international organizations on the situation in Iraq, the harsh blockade on medicine and the restrictions on Iraqi people denying them access to their basic human needs are still in place.

Dr. Umid Midhat Mubarak called on the WHO to oppose attempts by some parties to circumvent its resolutions that affirm the need to enable its members to obtain medical supplies and meet the needs of their people.

Concluding his speech, the health minister affirmed that the aid being extended by international nongovernmental and humanitarian organizations has not met, and will not meet, Iraq's pressing demands, noting that the medical and food supplies that have reached Iraq fulfill only 5-10 percent of Iraq's needs. He also noted that whenever a certain supply is made available, a shortage in another is reported. This is in addition to shortages of spare parts and medical equipment and devices used in hospitals, he said.

Agreement Signed With FAO To Eradicate Rinderpest

JN0706165892 Baghdad INA in Arabic 1500 GMT 7 Jun 92

[Text] Baghdad, 7 Jun (INA)—Iraq and the UN Food and Agriculture Organization [FAO] have signed an agreement to eradicate rinderpest.

The agreement provides for coordination and cooperation among five neighboring countries—namely, Iraq, Turkey, Iran, Syria, and Lebanon—to contribute toward the eradication of this pest. It also calls for an exchange of expertise and resources among these countries through the FAO to bring this dangerous pest under control. While Iraq is "clear" of this pest, a neighboring country is now suffering from it.

The agreement was signed on behalf of Iraq by Muwaffaq Ilyas Khadr, under secretary of the Ministry of Agriculture. For the FAO, the agreement was signed by Faruq al-Dasuqi, director of the FAO Baghdad office.

German Scientist Says Blockade Effects Health

JN2106141492 Baghdad INA in English 1210 GMT 21 June 92

[Excerpt] Baghdad, June 21, INA—A German scientist said the complications of bilharzia and the development of cancer in Iraq can be attributed to vitamin A deficiency due to the shortage of basic food that resulted from the embargo imposed on the country.

A report published here by the Iraqi English language daily "THE BAGHDAD OBSERVER" said as for patients suffering from bilharzia infection, after systematic administration of vitamin A, the urinary ova excretion largely increased. The most dangerous symptoms of bilharzia infection are related to the deposition of ova in the issues, Professor Sigwart Gunther told attendants of a lecture delivered recently at Saddam Medical City in Baghdad.

The researcher attributed epidermal cell division to indigenous factors, to exogenous influences and, at least, in certain forms of dyskeratosis, to the serum level of vitamin A.

"Any disturbance in the balance of these components results in abnormalities in keratinization," he said.

Vitamin A acid, he added, has been shown to have a prophylactic as well as therapeutic effect on chemically induced benign and malignant epithelial tumours in mice.

Apart from hypovitaminosis A in nutritional deficiency, there exists possible variations caused by processes within the organism. These variations may appear in several conditions of the skin and mucous membranes.

Variation of non-nutritional vitamin A deficiency could be related to such factors as pregnancy, disturbed physiological absorption, disturbed storage ability (disease of the liver), disturbed stimulation to mobilise vitamin A depots of the body and defective interaction with some other factors, he explained.

At the conclusion of his lecture, Professor Gunther decorated Dr. Rafah Salam 'Aziz, director of the Child Health Department of Baghdad University, with the silver medal (pro merito) presented by the president of the Albert Schweitzer Society in Austria, Dr. Braundle Falkensee. [passage omitted]

Health Ministry Gives Death Toll For First Four Months 1992

JN2106121592 Baghdad INA in Arabic 1125 GMT 21 Jun 92

[Excerpt] Baghdad, 21 Jun (INA)—As a result of the medical and food siege imposed on Iraq, 40,908 persons, including 14,678 children under five, died in Iraq during the first four months of this year. Dr. 'Abd-al-Jabbar 'Abd-al-'Abbas, under secretary of the Health Ministry, revealed this to INA. [passage omitted]

Child Diseases Reportedly Five Times Prewar Rate

JN3006172992 Baghdad AL-JUMHURIYAH in Arabic 29 Jun 92 p 8

[Article by Bushra Muhammad Shabib]

[Excerpt] Baghdad—Severe diarrhea, measles, and meningitis cases among children are five times as high as the rate preceding the 30-state aggression against the people of Iraq. Dr. Qasim Muhammad Isma'il, director of the Central Saddam Training Hospital for Children, told AL-JUMHURIYAH that the hospital is receiving urgent and ordinary cases from all areas. He said that the hospital is also working to provide full nutrition for children, especially with respect to milk and baby formulas, despite the hard circumstances Iraq is experiencing as a result of the continued unjust food and medicine blockade. He indicated that severe diarrhea and measles accompanied by malnutrition are difficult cases which do not respond easily to prescribed drugs. He affirmed that there is a sharp and unprecedented increase in the mortality rate among children because of malnutrition, the decline of the body's immune system, and as a result of the negative effects of the continued blockade on general health, especially among children under five. [passage omitted]

Harvard Study on Mortality Rate; Report on Bilharzia Cases

JN3006145792 Baghdad INA in English 1340 GMT 30 Jun 92

[Text] Baghdad, June 30, INA—Mortalities among Iraqi children from one to five years of age rose sharply as result ot the acute shortages of food and medicine ensuing from U.N. imposed sanctions on Iraq, a report by Harvard University team said.

The report said death rate among children has increased from 32.51 deaths per 1,000 births in 1985-1990 to 92.7 deaths per 1,000 births during and after U.S.-led war against Iraq.

Moreover, mortality rate among children under the age of five has recorded a threefold increase. The report added that the rate has increased from 43.2 to 128,8 deaths per 1,000 births.

The report elaborated that some 46,857 children under the age of five died in the first eight months of 1991.

The Harvard team indicated that the survey was meant to assess nutrition status of children and its impacts on their health condition. It said, as a result of the deteriorated states of children, some 21.8 percent of children under the age of five were under the normal height, and 11.9 percent were underweight, while the weight of some 3.4 percent did not match their height.

The report attributed the noticeable increase of mortality rate among children to the negative impacts of the U.S.-led war and the continuation of the economic embargo.

The report said the coalition forces bombing of Iraq's infrastructure and their destruction of power stations, water and wastewater treatment plants worsened the situation.

The Harvard study team visited Iraq in August, 1991, and conducted a preliminary report on mortality rate among Iraqi children during post-war period.

The team recorded some 80 deaths per 1,000 births among children under one year of age and 104 deaths per 1,000 among children under the age of five.

Meanwhile, the Ministry of Health has reported some 206 bilharzia cases in Iraqi provinces over the last five months.

A source at the ministry said health authorities registered 15 bilharzia cases in Maysan Province, 74 in Dhi Qar Province, 86 in Diyala Province and 31 cases in al-Anbar Province.

The source called on people to refrain from drinking contaminated water and urged them not to have food in open places or urinate in rivers and pools to avoid contracting the disease.

The source attributed the wide spread of the disease to the U.S.- led military aggression against Iraq and the UN-imposed sanctions which caused severe shortage of pesticides and laboratory equipment needed to diagnose the disease.

On April 22, the Ministry of Health also reported 108 bilharzia cases in Baghdad and other Iraqi provinces over the past two months.

In a statement to INA, Dr. Hashim Minwir, head of the Bilharzia Department at the Ministry of Health said health authorities have recorded three bilharzia cases in Baghdad, 54 cases in Dhi Qar, ten in Maysan, eight in Diyala, 24 in al-Anbar, four in Babil and a single case in each of al-Basrah and al-Najaf province.

Health Ministry Official on Rising Infant Mortality Rate

JN2806080792 Baghdad INA in Arabic 0621 GMT 28 Jun 92

[Excerpt] Baghdad, 28 Jun (INA)—Dr. Muhammad 'Abd-al-Rahman al-'Ami, director of the Extensive Immunization Program at the Ministry of Health, has said that the mortality rate among live births increased more than threefold during the eight months which followed the aggression compared with the infant mortality figures registered in 1990.

In a statement to the newspaper AL-JUMHURIYAH published today, Dr. al-'Ami added that the rise in the

infant mortality rate, which has become 92.7 per 1,000 live births, is a result of the aggressive war and the continuation of the unjust blockade imposed on Iraq, which has caused shortages of food, medicine, and other basic survival requirements. [passage omitted]

Official Warns of 'Health Crisis' Because of Shortages

JN0508171092 Baghdad INA in Arabic 1555 GMT 5 Aug 92

[Text] Baghdad, 5 Aug (INA)—Health Ministry Under Secretary Dr. Shawqi Murqus has said that 34 foreign pharmaceutical companies have so far not met their commitment to export medicines to Iraq despite the fact that the transactions were paid for before 1990.

At a press briefing here today, the under secretary noted that these companies were procrastinating because of pressure from their governments.

He said that the Ministry of Health has addressed many letters to, and held several meetings with, world health organizations and health ministers to coordinate with governments and companies involved in exporting medicine to Iraq, and to allow Iraq to import what is needed for its health departments and institutions. He noted, however, that Iraqi pleas have been completely ignored.

Dr. Murqus highlighted the worsening health crisis in Iraq, warning of its serious consequences in the foreseeable future. He added that Iraq is now suffering from a great shortage of medicine and medical equipment, noting that the humanitarian medical aid reaching Iraq is meeting only 2-5 percent of the nation's needs.

He called on humanitarian organizations to play an effective role in applying pressure on the United Nations, governments, and companies to lift the blockade and allow Iraq to import medicine and medical equipment to meet its needs.

MOROCCO

Canadian Joint Venture in Pharmaceuticals Discussed

92WE0499A Casablanca LA VIE ECONOMIQUE in French 22 May 92 pp 31-32

[Article by Najat Benyahia: "First Partnership in Pharmaceuticals Industry"—first paragraph is LA VIE ECONOMIQUE introduction]

[Text] Pursuant to an agreement between Moroccan laboratories and Canada's Apotex group, Canadian pharmaceutical products will be produced under license by Apotex-Maroc.

A major partnership project in the pharmaceutical sector has just come to fruition: Apotex-Maroc, which pools the resources of Canada's leading private pharmaceutical group and the pharmaceutical laboratories of Morocco's FADIP PHARMA [expansion not given].

To get an idea of the importance of this first Canadian-Moroccan joint venture in pharmaceuticals, a brief survey of the international pharmaceutical landscape would be useful. World pharmaceuticals sales, which have been on the increase for years, will grow by 7.1 percent in 1992 to reach $196.7 billion. According to IMS (Medical and Statistical Information), Africa will represent only 1.7 percent of that market, while North and Central America account for 30.9 percent, Western Europe 26.9 percent and the Far East 23.5 percent. In that context, this important Moroccan-Canadian partnership project will have two objectives:

First, the introduction of quality products (USP [U.S. Pharmacopeia] standards) at competitive prices. This is essential, since the countries covered by the accord have little purchasing power.

Second, any augmentation of pharmaceutical consumption in the countries covered by the accord must improve Africa's "pathetic" share of the international pharmaceuticals market.

Since July 1990, the date when the two sides signed an accord allowing FADIP PHARMA to make Apotex Canada products under license in Morocco, many obstacles have been overcome. Various authorizations had to be obtained from appropriate agencies.

Then there were decisions to be made on product lines, prices, technology transfer conditions, royalties, and the territories to be covered by the accord. The next step was the creation of Apotex-Maroc in January 1991, once the two partners reached an understanding that the FADIP PHARMA laboratory would take the name Apotex-Maroc, becoming a subsidiary of Apotex-Canada.

In hitching its fortunes to Apotex Canada, Apotex-Maroc made a shrewd decision.

Internationally Renowned

Established in Toronto (Canada) in 1974, Apotex Inc. Canada has become Canada's largest privately owned pharmaceuticals laboratory, employing more than 1,600 people around the world and boasting a yearly sales volume of $350 million [probably Canadian], some 20 percent of which is earmarked for research. Already represented in more than 80 countries, marketing a wide range of more than 220 pharmaceutical products, Apotex Inc. Canada also has overseas offices (Germany, Czechoslovakia, Venezuela...) and subsidiaries (France, United States, Morocco...). Apotex Inc. Canada and its affiliated companies are pursuing research in many fields to enhance health care services.

For example, the participation of Apotex Inc. Canada in ABI Biotechnology of Winnipeg has enabled them to continue their research on production of a synthetic equivalent to growth hormone as a treatment for

dwarfism, the VIII factor for treating hemophilia, and Interleukin-2 for treating diseases of the immune system such as AIDS. Multiple sclerosis and acute disseminated lupus erythematosus are also being studied.

Other ABI Biotechnology projects concern:

- monoclonal antibodies used in therapeutic products and diagnostic agents;
- anticancer medications, with the focus on development of chemical processes to synthesize new derivatives of "daunomicyne."

Shrewd Arrangement

Products made at the plants of Apotex Inc. Canada and its subsidiaries meet the highest fabrication standards and use very sophisticated technologies that meet the quality standards of the U.S. Pharmacopeia and the British Pharmacopeia [BP]. The strategic alliance between the two partners will benefit Apotex-Maroc in several ways.

Among the incontestable advantages of this alliance for Apotex-Maroc, we note:

1. The price factor: The selling price of Apotex-Maroc products will be 20 to 40 percent less than that of products already being sold in Morocco. This advantage, not an insignificant one for Moroccan consumers, results from favorable terms for the purchase of raw materials (USP or BP standards) on the Canadian market.

2. The technological factor: Apotex-Maroc will acquire know-how in cutting-edge technology.

3. Global vision: The combination of competitive prices and strict quality standards will allow Apotex-Maroc to export to the countries covered by the accord—in this case, the countries of the Maghreb, French-speaking Africa and the Middle East.

The two partners are gearing up energetically now on the production side and making every effort to be ready by October 1992. To this end, an Apotex-Maroc plant already in existence at Temara is being modified for fabrication of pharmaceutical products. The alteration will cost more than 20 million dirhams. The venture will ultimately create 80 to 120 new jobs in Morocco. Initially, it is expected to make 22 products under license to be sold in Morocco beginning in June 1992. This first line of offerings will consist of:

- four anti-inflammatories;
- six products for the central nervous system;
- three anti-infection products;
- three products in the gastroenterology field;
- six cardiology products.

It should also be noted that five of the products to be sold in this first phase are among the 10 top-selling [pharmaceutical] products in the world. As part of the accord, which provides for training, technical assistance and technology transfer, experts from Apotex Inc. Canada are supposed to arrive soon in Morocco.

Despite its incontestable advantages, several questions arise. The Canadian pharmaceutical industry is not well known in Morocco. That implies the need to promote Canadian products on a market where the competition is very keen and where consumer habits are difficult to change.

How will these products be positioned vis-a-vis the competition?

How will they be adapted to Moroccan conditions?

Managing director Es-Saadi and his team are trying to come up with the best answers to such questions, because although the Moroccan pharmaceutical market is highly competitive, Apotex-Maroc has a number of things going for it, in terms of both product quality and its generally competitive prices in Morocco.

This diversification in the choice of foreign partners can only be beneficial for the Moroccan pharmaceutical market as it brings steady improvement in efficiency, know-how, and quality.

Utilization of Nuclear Medicine Detailed

92WE0473A Casablanca MAROC SOIR in French 11 Apr 92 p 8

[Article by Abdelhadi Guenoun: "Nuclear Science in the Service of Medicine and Biology"—first three paragraphs are editorial introduction]

[Text] The Moroccan Association of Atomic Engineers is sponsoring an information seminar on the use of nuclear techniques in medicine in Morocco, within the framework of its cultural activities and in cooperation with the French Atomic Energy Commission. Prime Minister Dr. Azzeddine Laraki is serving as honorary president of the seminar, and the ministers of public health and of national education are presiding over the sessions.

The seminar will be held from 0830 to 1900, Saturday, 11 April 1992, at the Anfa Social and Cultural Complex in Casablanca.

Considered one of the most remarkable scientific events of early 1992, the seminar will be marked by distinguished lectures given by the most well-known Moroccan medical personalities and engineers from the Atomic Energy Commission.

Just as the discovery of X rays at the end of the 19th century provided an opportunity for the development of radiology, the discovery of artificial radioactivity by Irene and Frederic Joliot opened the way for the development of a new medical discipline, nuclear medicine, which applies techniques that use artificial radioactive elements from unsealed sources to medicine and biology.

This medical discipline has developed considerably during the years since World War II. Its development has benefited largely from the important technological progress made during the past three decades, particularly in the fields of electronics, data processing, and molecular biology.

In a few decades, the areas for the application of this new medical specialty have extended to the exploration of almost all of the organs of the human body, opening up new possibilities of functional evaluation and diagnosis. The number of nuclear medicine installations has continued to increase in the United States, where there are 33 installations per million inhabitants; Japan, where there are 10 installations per million inhabitants; and France, where there are nearly five installations per million inhabitants.

In Morocco, there are presently four nuclear medicine installations.

With the forthcoming installation of the CNSTN [National Center for Nuclear Science and Technology] our hope is to see the development of additional installations. Artificial radioactive elements, still called artificial isotopes, are used in medicine and biology as radioactive trace elements.

They are produced by nuclear generators, most often by irradiation of thermal neutrons or through nuclear reactions. They are provided to the nuclear medicine centers in appropriate chemical forms (radioactive pharmaceuticals), making the exploration of a given organ possible.

They are shipped in protective containers during transportation from the distribution centers to the nuclear medicine centers. Their use by nuclear medicine services is regulated in the various countries. In Morocco the use of artificial radioactive elements is controlled by the Ministry of Public Health through the Central Service of Radiological Protection [SCPR], which makes sure that these elements are subject to appropriate security standards before they are used.

For example, the locations where they are used must have all of the technical resources available to manage stocks of radioactive elements and their waste products under conditions of complete security.

Personnel working in such installations are subject to regular medical and radiobiological examinations.

In general, the amounts of radioactive elements used on sick people are low-level, trace doses. They only emit radiation of a cellular magnitude, as in the case of periodic radiological examinations. Therefore, the research is not invasive and does not require hospitalization.

The areas for the application of nuclear medicine are very broad.

A distinction is usually made between applications requiring the administration, intravenously or orally, of a certain quantity of a radioactive substance to sick people. This is called an "in vivo" application. Applications that do not require administering radioactive substances to sick people and that are used in laboratories on tissue samples are called "in vitro" applications.

"In vivo" applications involve the administration of a specific quantity of an appropriate radioactive substance, generally consisting of a chemical molecule marked by a radioactive isotope. It is deliberately attached to the organ that will be explored.

The behavior of this radioactive substance in the human body is not changed by the fact that it is marked by an isotope. Once injected, it constitutes a trace element that, through the use of gamma cameras or scintigraphs, makes it possible to develop a cartographic picture of the distribution of the radioactive element within the organ being explored. That way, a morphological study of the organ can be made.

It is also possible to follow the evolution of the radioactive element's distribution within the organ being examined. In this way, a dynamic study can be made, the analysis of which permits a functional exploration of the organ.

Many organs can thus be studied, both on the morphological as well as the functional level.

The data thus obtained cannot be directly compared to data obtained by conventional radiological examinations.

The two types of exploration are complementary.

It is thus possible to explore most of the organs of the human body. For example, we might mention:

- Thyroid scintigraphy;
- Bone scintigraphy;
- Renal scintigraphy;
- Cardiac scintigraphy;
- Pulmonary scintigraphy.

The other applications are "in vitro."

Here, the isotopes are used in trace doses, obtained during chemical reactions. Thanks to the sensitivity of radioactive measurement, they make it possible to use high-precision doses. In particular, this is the case in doses using radioimmunological techniques that make it possible to measure the plasma concentrations of substances circulating in the blood in extremely low concentrations (hormones, antibodies, antigenes, tumor marking medicines, etc).

Another, presently limited application of nuclear medicine involves the therapeutic possibilities of using artificial radioactive elements.

Among the present applications, we may mention the use of iodine 131 to treat certain forms of hyperthyroidism and differentiated cancer of the thyroid.

Therefore, nuclear medicine is a relatively young medical discipline that has progressed because of the vision of many doctors who, in the United States and in France in particular, have developed its principles and methodologies. However, nuclear medicine has also grown because of the prodigious development of electronics and data processing techniques that have made the development of extremely sensitive detectors possible.

The recent developments in the area of genetic engineering in particular will probably make possible the selection of new molecular vectors that will open the way to new diagnostic and therapeutic applications (using immunoscintigraphy).

SUDAN

Medical Agreement Signed With Iran

EA0109152592 Khartoum SUNA in English 1620 GMT 31 Aug 92

[Text] Khartoum, 31 Aug (SUNA)—The Sudan and the Islamic Republic of Iran have concluded a medical cooperation agreement which will enable Sudan [to] benefit from Iran's experiments in medical spheres. The agreement aims at boosting the joint scientific research in medical specialisations, training opportunities in postgraduate studies, information and press spheres.

The agreement was concluded during the recent visit to Iran paid by member of the RCC [Revolution Command Council] and minister of health Brig Faysal Madani Mukhtar accompanied by Dr. Khayri 'Abd al- Rahman, first under-secretary of the Ministry of Health.

Dr. Khayri has commended Iran's concern with promoting medical relations between the two countries. He pointed out that the Iranian Ministry of Health will undertake modernisation of medical services' network and control of epidemic diseases in the Sudan. He added that the Iranian minister [of] health will visit the Sudan next December to implement the agreement.

TUNISIA

Statistics on Infectious Disease Eradication

92WE0517A Tunis AL-ANWAR AL-TUNISIYAH in Arabic 31 May 92 p 4

[Article by 'Abd-al-Dayim al-Samari]

[Text] Several days ago, news of measles spread, causing concern. A while ago, troubling reports of rabies and rabid dogs resurfaced. Concern with AIDS has been growing for some time, and with it, psychological barriers and precautions. Several years ago, a generation of new diseases began to spread, e.g., high blood pressure, diabetes, and various cancers—and those not afflicted with them are not exempt from the anxiety that they produce.

However, to balance these collective health concerns, we can point with satisfaction to the eradication of an entire generation of infectious diseases, which wreaked havoc just a few decades ago. Thus, accounts of malaria, bilharziasis, and cholera have become mere press reports about foreign countries—items of interest but no cause for concern.

To a certain extent, this dichotomy in the health situation prompted AL-ANWAR to ask: What is the state of our health?

Classifications

Health experts in Tunisia divide diseases prevalent in Tunisia into three classifications: infectious diseases, diseases stemming from the development of society [i.e. lifestyle, diet, stress, and the environment], and mental illnesses. AL-ANWAR's sources state that we follow one of two methods in dealing with these different diseases. The first, which is used to combat some diseases, entails the preparation of programs based on what specialists call a "an epidemiological study [halah waba'iyah]." Intervention is carried out after goals are defined. The second method is to combat a disease after it appears. AL-ANWAR's sources stress that the Health Ministry, when it prepares such a program, observes objective criteria, e.g., the extent to which a disease has spread, and the extent to which it has affected the health situation. To date, these programs have targeted the following:

- Immunizable infectious diseases
- Unimmunizable Infectious diseases, e.g., bilharziasis, malaria, and tuberculosis.
- Social diseases strongly linked with individual or group living conditions [i.e. caused by squalor or substandard living conditions] (e.g. mange and genital warts).

The Map

Going beyond generalities, let us define the question as follows: What is the current profile of infectious diseases in Tunisia?

According to AL-ANWAR's sources for this report, the current situation can be outlined as follows:

- Many infectious diseases (transmitted from one human to another) and zoonoses (diseases of animals communicable to humans), including smallpox, malaria, and bilharziasis, have been conclusively eradicated thanks to the health program, with its modern concept of ensuring of physical, psychological, and social well-being.
- The incidence of several diseases has been reduced very significantly, e.g., poliomyelitis (only one or two cases occur each year in Tunisia) and diphtheria and diarrhea among children.
- The incidence of tuberculosis and measles has dropped.

- Tunisia has seen the appearance of several diseases linked to the economic and social development of society, e.g., diabetes, high blood pressure, coronary artery disease, and several types of tumors.

Disease-fighting efforts in Tunisia also have their legal dimensions. Our sources point to the existence of an explicit list of diseases. By law, the detection of a single case of any disease on this list must be announced. We record an average of about 10,000 cases of such diseases per annum (11,771 cases were recorded in 1991).

According to our sources, health experts divide this long list into a number of classifications. The first classification includes a number of diseases transmitted through the water, including typhoid fever and hepatitis A. These diseases are communicated primarily through the consumption of unpotable water or fresh vegetables irrigated by polluted water. Statistics indicate that the incidence of typhoid fever has been declining. In 1987, 11.2 cases per 100,000 residents were recorded compared to 6.2 per 100,000 residents in 1991. No cases of cholera have been recorded since 1986.

Diseases To Be Eradicated

The second classification contains a list of diseases targeted by the national immunization program, including measles, poliomyelitis, tuberculosis, tetanus, and diphtheria.

Only three cases of poliomyelitis were recorded between 1988 and 1991. Our sources state that poliomyelitis will be eradicated completely in Tunisia by 1995, when the final stage of the national anti-polio program will be completed.

Tuberculosis is linked almost organically to an individual's social and economic status, especially living conditions. According to statistics, 48 cases per 100,000 residents were recorded in 1975, compared to 30 and 25 per 100,000 residents in 1987 and 1991, respectively.

Regarding measles, for every 100,000 residents, 50.7 cases were recorded in 1987, compared to 3.7 in 1988, 6.8 in 1990, and 15.3 in 1991. Measles should be viewed from several angles. Inoculation in Tunisia currently includes 80 percent of the children. Twenty percent are thus susceptible to contracting measles. On the other hand, the protective serum leaves [only] a marginal 5-percent susceptibility to measles [as the result of herd immunity]. Our sources say that these percentages accumulate every five or six years, resulting in a "limited epidemic," as happened this year. Such an epidemic also occurred in 1986. Even the most developed countries are subject to this phenomenon.

As for diphtheria, three cases were reported in 1987, but none since then. Ten cases of neonatorum tetanus are recorded annually throughout Tunisia. Neonatorum tetanus is caused primarily by childbirth in the absence of medical supervision outside of obstetrics centers. (The rate of obstetrical health coverage currently totals 70 percent in Tunisia).

Zoonoses

Diseases communicated to humans from animals are a part of the Tunisian epidemiological map. They include Malta fever [brucellosis], which afflicts cows and sheep in particular, and is transmitted through milk or dairy products to human beings. Several cases have appeared in the south and southwest. We recorded 479 cases in 1991, whereas the number of cases in preceding years did not exceed 50 per year.

Rabies is not absent from Tunisia. Rabies is a dangerous disease, because it is fatal in every case. The Health and Agriculture Ministries are now coordinating their efforts to combat it. According to statistics, two cases were recorded in 1987, one in 1988, and 12 in 1991.

Sexual Diseases

Among the diseases transmitted between humans, AIDS has been talked about for some time. In Tunisia, we have recorded 308 cases of AIDS since December 1985, 75 percent of which were contracted outside Tunisia. The other 25 percent were contracted through contact with imported blood products, given the absence in Tunisia of precise monitoring methods before 1985. To date, 50 persons have died in Tunisia as the result of this epidemic; 203 persons are carriers.

Diseases of the Era!

In addition to all of these diseases, other diseases, which can be called diseases of the era, have begun to spread in recent years. In this regard, our sources stress that the agencies of the Public Health Ministry are in the process of preparing a program to treat high blood pressure and diabetes. They have also prepared a national mental health program based on the following three foundations:

- Care for the mentally ill, especially in primary health centers to provide these patients with access to services and to reduce pressure on regular centers, e.g., the al-Razi Hospital in Manouba.
- [Measures to] prevent the aggravation of cases, and the uninterrupted provision of medication to prevent mental disturbances.
- Prevention of social ills, e.g., school failure, homelessness, and delinquency, which are closely tied to the concept of comprehensive health.

In this space we have certainly not exhausted the entire list [of health problems]. Nor have we dealt with all of the efforts which have been made. To do so would certainly require a much larger space than this, according to our sources.

Food Vendors Violate Sanitary Norms

92WE0471A Moscow TORGOVAYA GAZETA in Russian 28 Apr 92 p 3

[Article by correspondent P. Godlevskiy: "Will Everyone Survive Until Monday?"]

[Text] Capitalizing on the ukase of the Russian president giving enterprises and private individuals the right to sell anything they want wherever they want, thousands of modern Korobeyniks have literally taken over Volgograd's crowded places. It was stipulated in the ukase that merchants must observe the requirements of sanitary norms and the rules of public order, and regulations on the quality of the goods sold, food primarily, so as not to jeopardize the health of consumers.

Unfortunately, merchants are not taking this ukase seriously. They are selling cured and fresh fish next door to Chinese cockroach bait, and shoe polish right next to cookies and sandwiches. Meat is being sold straight off of trucks and out of car trunks without veterinary certification, even though there have been cases of brucellosis at a number of farms of the oblast and neighboring oblasts. Public food services, which sometimes sell large quantities of cream-filled goods kept in refrigerated counters, aren't far behind the private vendors in gross violations of sanitary norms either.

The hospitals were the first to experience the results of this revelry of unsanitary practices: The number of patients with acute intestinal ailments increased dramatically. Seven cases of botulism have already been registered in the city. A group of five persons were poisoned by mushrooms purchased from a street vendor. They were found to be lethal to the production director of the Ostrava Restaurant. An "acquaintance" of a worker at the Kaustik Association also died after drinking an alcoholic beverage.

In order to avert the advancing calamity, and to restore order in food trade, the city's administration approved the "Interim Sanitary Regulations on Organizing Food Trade in the City of Volgograd." But have these regulations begun to operate, will they make it possible to put uncontrolled trade under the control of existing legislation?

Having toured the busiest market stalls in the central part of the city, I was unable to detect any serious changes. Fish, sausage, meat and other scarce goods lay in the dust on cardboard, polyethylene film and bits of newspaper. The thought that came to me was this: Will everyone who buys these things survive until Monday?

Thyroid Gland Diseases Increased 22-Fold in Past Five Years

LD2806170192 Moscow ITAR-TASS in English 0912 GMT 27 Jun 92

[Article by BELTA correspondent Lidia Pesesypkina for TASS]

[Text] Minsk June 27 TASS—The incidence of oncologic diseases of the thyroid gland among children went up by 22 time in Byelarus over the past five years, head of the Byelarussian parliament Stanislav Shushkevich said at the U.N. Conference for Environment and Development in Rio de Janeiro. This information came from medics of the republican dispensary at the research institute of radiology—a unique public health institution which helps diagnose the dangerous disease at the initial stage.

"We give consultations to all the people living in the contaminated areas—a total of 2,270,000. Our main task, however, is to render methodological assistance to the republic's physicians," Valeriy Rzheutsky, chief physician of the dispensary, told TASS.

The studies conducted over the past several years revealed considerable changes in the endocrine system of both adults and children, Rzheutsky said. These include the second- and third- degree growth of the thyroid gland, i.e. the growth by 50 to 60 percent. The incidence of thyroid gland diseases also showed an increase, and not only in the areas under tough control. In addition, cases of the thyroid gland cancer also became more frequent.

"We can save our gene pool only with the help of early diagnosing and the improvement of the ecological situation in the republic," Rzheutsky believes.

Ob River Declared Bacteriological Danger Zone

92WE0603B Moscow ROSSIYSKAYA GAZETA in Russian 1 Jul 92 p 1

[Text] Waters of the Ob from Barnaul to Novosibirsk have been declared a bacteriological danger zone. Swimming, fishing, and use of water for drinking and industrial needs are prohibited here. The reason for this is shut-down of pumping stations in Barnaul for preventive repairs. As a result, up to 50,000 cubic meters of untreated wastes are dumped each day into the Barnaulka and the Ob.

Chernobyl Children Arrive in Japan From Byelarus

OW0207053592 Tokyo KYODO in English 0424 GMT 2 Jul 92

[Text] Narita, Chiba Pref., July 2 KYODO—Ten children from Byelarus who were exposed to radiation in the 1986 Chernobyl nuclear power plant accident arrived in Japan on Thursday to undergo detailed physical examinations.

The children, invited by a citizen's group in the city of Matsumoto in Nagano Prefecture called the Japan-Chernobyl Solidarity Foundation, will receive examinations at the city's Shinshu University Hospital. All 10 were among 700 children identified by doctors from the hospital who have traveled to Byelarus over the last six

years as possibly needing treatment to prevent from worsening in their condition.

A hospital spokesman said the children will have internal examinations to determine levels of radiation to which they were exposed. He added that the examinations are precautionary, and that the children are not physically ill at present.

The children, who are between the ages of 10 and 15, will take an express bus Saturday from Tokyo to Nagano, where they will stay in facilities provided by Matsumoto. Besides receiving medical treatment, the children will visit Kyoto and the city of Takasago in Hyogo Prefecture, for sightseeing and to participate in cultural exchanges before they return home at the end of July.

Takushi Takahashi, chairman of the foundation, said the results of the examinations will be studied by doctors being sent to Byelarus to provide treatment to other affected people there. He said, "I hope to use this opportunity to make a long-lasting medical plan."

Increased Incidence of Birth Defects

PM2007133592 Moscow ROSSIYSKAYA GAZETA in Russian 17 Jul 92 First Edition p 1

[Report from ROSSIYSKAYA GAZETA/ITAR-TASS roundup under the general heading "News in Brief"]

[Text] The number of children with birth defects, including blood disorders and malignant tumors, is increasing. This alarming trend has been recorded by specialists at the Khabarovsk Maternity and Infancy Protection Institute. A medical ecology laboratory has been set up there to study and comprehensively analyze the health of children in the Far East region.

Director Outlines Planned Pharmaceutical Production Upgrades

92US0719C Ashgabat TURKMENSKAYA ISKRA in Russian 28 Jul 92 p 2

[Interview with Murad Orazkuliyevich Karryyev, professor, doctor of pharmaceutical sciences, and general director of the State Turkmenderman Association, by V. Obramenko; date and place not given: "For the Sake of Human Health"]

[Text] The ukase of the president of Turkmenistan "On Measures To Protect Wild Licorice, Venomous Snakes, and the Products of Their Vital Processes" is not the first document aimed at the establishment of the republic's own pharmaceutical industry and the reinforcement of its raw material base. Our correspondent discussed the role they are expected to play in the establishment of a pharmaceutical industry, which would be of such great importance to Turkmenistan, and the prospects for its development with Professor M.O. Karryyev, doctor of pharmaceutical sciences and general director of the State Turkmenderman Association.

Karryyev: Our industry has not been neglected. It has received constant support. I think this is an indication of the republic leadership's concern about the health of citizens. After all, Turkmenderman is supposed to play an important role in supplying the inhabitants of Turkmenistan with medicine.

Unfortunately, the legacy we inherited was not the best. The Ashgabat Chemical and Pharmaceutical Plant, the Buyan (or "Solodka") Agricultural Center, the Derman Sovkhoz, and other production units all require renovation. The fact is that the former Union spent huge sums on the development of the pharmaceutical industry in the countries of Eastern Europe in the hope of receiving various medicines from them at reasonable prices in the future. Now they are offering us these medicines for hard currency.

For two years we have been trying to remodel and renovate various sections of our enterprises. The Ashgabat Chemical and Pharmaceutical Plant is acquiring a new building for its quality control service, consumer services, and administrative staff. A permanent storage facility for raw materials is being built next to this structure.

The warehouse of the State Committee for Statistics will be moved off the grounds of the plant to make room for a modern iodine shop. As for the tablet shop, a contract has been signed with the Bombay Pharmaceutical Firm for a joint venture in the production of various tablets meeting world standards. In conjunction with the Biolen enterprise (in St. Petersburg), we are remodeling the licorice extract plant and enlarging the area sown to medicinal plants on the Derman Sovkhoz. The first and only serpentarium in the CIS countries is being built for the year-round care of snakes. The full-cycle complex will provide the reptiles with a virtually natural habitat. Now we will not have to trap snakes in spring for the collection of venom and release them in the fall. Because of the rising demand for licorice root, we plan to grow licorice on new farms in the Parakhat and Garabekebyul areas.

Obramenko: Judging by all indications, you are making the move to industrial methods of growing licorice and obtaining snake venom.

Karryyev: Yes, and the presidential ukase was quite timely in this respect. Licorice and snake venom represent public property and public wealth, because the republic is getting hard currency for them, and this can contribute significantly to the reinforcement of our state's economy.

Licorice root has recently been the object of barbarous appropriation by various enterprises, cooperatives, and individual citizens, who have been sending it to other CIS countries and outside the Commonwealth. This is causing our supplies to dwindle and is reducing the yield of natural stands of wild licorice. Whereas plants on the banks of the Amu Darya produced up to 30,000 tonnes of the valuable raw material a year just 20 years ago,

today they produce only one-tenth as much. This kind of intensive and unrestricted harvesting will deplete the natural reserves of licorice, and our children will see it only in pictures. People are not treating our snakes with care either. Vipers and cobras die after they are caught and milked by non-professionals.

The ukase precluded the establishment of serpentariums in other branches of the national economy. After all, we have to admit that some departmental administrators were trying to open their own serpentariums for the purpose of obtaining and selling venom, and not for the advancement of science and the safety of the snakes.

Obramenko: Murad Orazkuliyevich, as far as I know, representatives from CIS countries, Japan, Germany, and England have expressed an interest in working with you and buying licorice root from you. Do you intend to conclude any such agreements?

Karryyev: This valuable gift from nature was sent out of the republic for many years, and this was viewed as a lucrative business, but now we are learning to following the guidelines of the market economy.

Judge for yourself: 20 tonnes of licorice root now cost 20,000 dollars in the world market, but if the same quantity of licorice root is used to produce a tonne of glycyrrhizic acid, which is 50 times as sweet as sugar, we can sell it for 500,000-700,000 dollars.

This means it is more profitable for us to produce this acid and sell the finished product. This is why we plan to build a new extract plant in the near future for the processing of licorice and the derivation of glycyrrhizic acid, especially now that it is being used in the production of more than 300 types of medicinal compounds as well as Pepsi and Coca-Cola. We hope to carry out this project with the help of a St. Petersburg firm.

In addition, the world recently heard the news that licorice could be used to produce niglycine [niglizin], which suppresses the development of the AIDS virus. It has already undergone tests in the Vektor Scientific Production Association in Novosibirsk. It was developed with the help of scientists from the Buyan Laboratory and the associates of the Chemistry Institute of the Bashkortostan Scientific Research Institute, Ural Department of the Russian Academy of Sciences.

I hope the time will come soon when not one kilogram of licorice will be sent out of Turkmenistan, and only finished products and medicines will be exported.

Obramenko: But licorice is not our only resource. Around 2,700 medicinal plants grow in Turkmenistan. Are you using them in medicine production?

Karryyev: Our land is rich in resources, but only the plants that grow in large quantities can be used in industrial production. We do not have any more than six or seven of these. They are eglantine, corn, sophora japonica, squash, and a few others. The Derman Sovkhoz is raising 15 types of plants that are used at pharmaceutical enterprises in the CIS and the republic. Our enterprises have begun producing various therapeutic teas and tonics, such as Bakhar, Kopetdag, and Palvan. They are already prized by our inhabitants because they are excellent thirst-quenchers and are invigorating and healthful.

Our current renovation projects could be categorized as new construction projects in a certain sense. After all, we are equipping enterprises with state-of-the-art technology. We will also be building absolutely new enterprises. I just returned from Germany, where we signed a contract with a well-known pharmaceutical firm, Fresinius-Fermaplan, for the joint construction of a plant in Ashgabat for the production of infusion solutions, such as potassium chloride, glucose, distilled water, and others, and also the future production of blood substitutes with intravenous injection kits.

Opening this enterprise will free tens of thousands of druggists from the need to make solutions and will improve the quality of medicines. The enterprise's output during the initial stage should exceed 6 million plastic pouches a year, which will not only satisfy Turkmenistan's need for these products, but will also provide us with items to sell in the foreign market. After all, there is no other such enterprise in the Central Asian states or the neighboring foreign countries of the East. Later the output could be increased to 12 million pouches a year. We also have other interesting projects in mind, but we are still working on them and it is too early to discuss them.

Obramenko: The new enterprise will be the second pharmaceutical plant producing finished medicinal preparations in Turkmenistan. How is the Ashgabat Chemical and Pharmaceutical Plant doing under present conditions?

Karryyev: It is still a sound enterprise and is fulfilling plans and state orders. Today it produces over 30 different medicinal preparations, including various tablets, tinctures, and ointments. We supply our pharmacies and hospitals with them and send them out of Turkmenistan on state orders. We are having some difficulty now because many of our clients are insolvent.

We ship out all of our medicines because we realize that people need them, but the stability of our production depends largely on timely deliveries of raw materials, some of which we receive in exchange for finished products. If this continues, we will have to start using only local raw materials of vegetable, animal, and mineral origin. This will reduce the number of workers at our enterprises and provide people with the medicines they need. We already have enough experience. When we had difficulty producing tincture of iodine, Turkmenistan's leaders solved the problem by allocating the necessary quantity of crystalline iodine for the production of the tincture. Now pharmacies and hospitals will get the tincture in sufficient quantities. We will also be using

snake venom at the plant, and we already have a production line for the well-known Viproteks and Viprokutan antiphlogistic and anodyne ointments.

Sanitary Committee Issues Warning After Mushroom Poisoning

LD0708212592 Moscow ITAR-TASS in English 1813 GMT 7 Aug 92

[Article by ITAR-TASS correspondent]

[Text] Moscow August 7 TASS—The Russian state sanitary- epidemological inspection calls on all citizens to abstain from picking up and eating mushrooms, using them in children' meals and buying them in the street, sources at the Russian State Sanitary- Epidemological Committee chairman's reception room told ITAR-TASS.

According to the committee information, a total of 184 people have poisoned themselves with mushrooms by August 7 in 14 districts of the Voronezh Region. Twenty four of them died, including 14 children. From three to ten mushroom poisoning cases have been revealed in the neighbouring Volgograd, Liptsk and Saratov regions.

Specialists and scientists have tested mushrooms on possible pollution with heavy metals, pesticides and radionuclides. Toxicological tests on animals show the presence of strong poison in mushrooms.

Scientists have voiced an opinion that a possible reason for this is the change of the look of poisonous mushrooms, for instance the toadsool which looks like the russula, the honey agaric or the field mushroom.

The committee says a considerable number of mushroom poisoning victims are experienced mushroomers.

Mushroom samples are now being studied.

A similar situation was reported in June-July from Ukraine, where over 400 people got poisoned in the Lugansk, Donetsk and other regions. Forty of them died, including 20 children.

Sharp Increase of TB Cases in Khabarovsk

LD1408223192 Moscow ITAR-TASS in English 0954 GMT 14 Aug 92

[ITAR-TASS]

[Text] Khabarovsk August 13 TASS—A sharp rise in tuberculosis [TB] cases is reported in Khabarovsk territory. There are 52 positive TB patients for every 100,000 residents. One- third of them are reported to be in a neglected state, causing a danger to all surrounding them, particularly, children and teenagers. Workers of anti-TB clinic of the territory have warned the population of the importance of undergoing fluorographical screenings. An early stage revelation of this contagious disease is extremely important and guarantees its successful treatment.

New Toxicological Institute Opens in Dnepropetrovsk

PM2508112992 Moscow Teleradiokompaniya Ostankino Television First Program Network in Russian 1700 GMT 20 Aug 92

[From the "Novosti" newscast: Video report by G. Klimov and V. Shtengelov, identified by caption, from the Dnepropetrovsk Toxicological Center]

[Text] [Klimov over video of imposing building with a fountain] The funds for this center have been provided by the city and its industrial enterprises. The fact that it is located in an ecological disaster zone merely enhances its importance. There are a lot of cases of poisoning—mushroom poisoning, poisoning with chemical weedkillers, pesticides, and industrial discharges...

Equipment which will make it possible to swiftly identify poisons in patients' organism and find effective antidotes is currently being run in. Expensive equipment, including a kidney machine, has been acquired for the center from the German Siemens Company. As to its facilities, the Dnepropetrovsk Toxicological Center is without parallel in Ukraine. [video show exterior and interior of institute]

FRANCE

Researchers Developing Biological Pesticides to Eradicate Tropical Disease Vectors

92WS0555D Paris BIO: LA LETTRE DES BIOTECHNOLOGIES in French 5 Apr 92 p 7

[Article entitled: "Biopesticides to Eradicate Mosquitoes"]

[Text] A Bureau of Overseas Scientific and Technical Research (ORSTOM) team led by Jean Marc Hougard and working at the Yaounde Pasteur Center in Cameroon conducted a large-scale mosquito-eradication campaign from 24 February to 20 March 1992 The researchers used a biological pesticide called *Bacillus sphericus*. It was the first time such a campaign had been conducted on a city-wide scale. The city was Maroua, an urban center of nearly 150,000 inhabitants in northern Cameroon. The team applied the biopesticide to all the egg-clutch sites of the principal urban mosquito, *Culex quinquefasciatus*. The bacteria's spores contain a toxin that kills the mosquito's larvae after ingestion. Substantial logistical support made it possible to complete the project, which was supported and partially financed by the World Health Organization's Tropical Disease Research program, in just one attempt. Ten motorized teams, or 50 people, participated in the campaign, which took place during the dry season two months before the first heavy rains could dilute and wash away the pesticide.

The researchers expect the mosquito to be virtually eradicated from the treated sites. However, there is a strong chance that it will reappear, due to overlooked or new beds, reinfestations from nearby towns, etc. In that case, researchers will study and measure the causes and speed with which the mosquito repopulates Maroua, to assess the effectiveness of large-scale treatment and determine how the biological pesticide should be sprayed. Initial results are expected at the start of the rainy season next July, when the mosquito population is ordinarily quite large.

Mosquitoes periodically constitute a veritable scourge in Africa and many other regions of the globe. Certain species such as the *Anopheles* transmit the parasite for malaria, which infects about 270 million people. Others such as *Culex* or the *Mansonias* are vectors for lymphatic filariasises (about 80 million people affected). Mosquitoes can also be a nuisance in themselves, just by the number of bites they inflict: In Maroua, one individual can be bitten over 300 times a night during certain periods of the year.

Biological pesticides offer new opportunities—environmentally safer than those afforded by chemical pesticides—to combat tropical disease vectors. To date, two micro-organisms have proved to be especially useful and environmentally safe: *B. sphericus* and *Bacillus thuringiensis*. The latter, which is already functional, has been put to use as an anti-simulium larvicide in the program to combat onchocerciasis in West Africa. When employed in rotation with chemical larvicides, it has successfully delayed and countered simulium resistance to the insecticides. *B. sphericus* is on the verge of becoming the larvicide for polluted water—seriously rivaling chemical insecticides, which pollute and are losing their effectiveness due to acquired resistance. The results of such experiments and the possibilities offered by genetic manipulation offer new hope. Introducing the genes that enable the *Bacilli* to produce larvicide toxins into other organisms such as algae may extend the micro-organisms' scope of action, increase their toxicity, and improve their remanence.

GERMANY

New Treatment To Be Used On Multiple Sclerosis Patients

92WE0550A Hamburg DIE WELT in German 2 July 92 p 12

[Article by Annette Tuffs: "After Self-Experimentation: Drug For MS To Be Tested"]

[Text] Bonn—The Marburg company Behringwerke will test the drug deoxyspergualin (DSG) on patients who suffer from multiple sclerosis (MS), it was announced yesterday. The pharmaceutical firm stated that preparations had now been completed. The drug, which has not been approved to date, made headlines when Munich anesthesiologist Prof. Niels Franke, an MS sufferer, tried it on himself in a daring self-experiment. The progress of the disease was stopped—Franke believes by DSG.

MS is a nerve disease that progresses by degrees and involves paralysis and motor difficulties. Pathogenic lesions develop in the brain and spinal cord which destroy the nerve fiber sheaths. It is assumed that the immune system malfunctions. DSG presumably surpresses the immune system's attacks on the nerve fibers. Franke reports in his book *Multiple Sclerosis: Hope and an Attempt at Conquest* on his decades-long suffering. He is calling on Behringwerke to test DSG on MS sufferers. Around 1,300 patients have meanwhile asked Behringwerke about DSG.

The pharmaceutical firm has decided—partially on the basis of favorable results with DSG in animal tests—to undertake clinical testing of the drug. Eight neurological centers in the FRG, Switzerland, and France will participate in the DSG study. Initially, a total of 108 patients will be treated with either two varying doses of DSG or an ineffective dummy preparation (placebo). The preparations will initially be injected five times at monthly intervals. Two years have been scheduled for this initial clinical testing.

Dr. Wolfgang Faust, spokesman for Behringwerke, stated that the number of patients has initially been kept so low in order to obtain results as rapidly as possibile. If a positive effect should be quickly noted, the firm is

contemplating further studies with a larger number of patients. The success of the treatment will be monitored monthly with the aid of magnetic resonance imaging. It can quite accurately determine whether the demyelination of the nerve fibers—a typical feature of MS—has progressed. Behringwerke is warning against premature optimism, however. Experience has reportedly shown that, in the final analysis, nine out of 10 "miracle drugs" fail in clinical testing.

Seehofer Plans To Save DM11.4 Billion in Health Sphere

AU1309202092 Munich SUEDDEUTSCHE ZEITUNG in German 12 Sep 92 p 1

[Article "for" report: "Coalition and SPD Want To Cooperate on Reform; Seehofer: DM11 Billion To Be Saved in 1993"]

[Text] Bonn—The Bonn government parties and the Social Democratic Party of Germany [SPD] want to cooperate closely in the sphere of health policy and work out a joint draft concerning the financing of the health reform, as they did in 1989 with the pension reform. The offer for cooperation submitted by Health Minister Seehofer (Christian Social Union) was accepted by the SPD official responsible for social policy, Dressler, during the first debate at the Bundestag of the new law designed to restructure the health sphere. Before the beginning of the discussions in the committees, both sides want to meet for talks. The basis will be Seehofer's draft bill and the SPD's ideas on the health reform that have been presented to the Bundestag.

Seehofer stressed that the joint efforts should not lead to watering down the planned cuts involving DM11.4 billion in the next two years. In addition, burdens must be distributed in a just way. With his reform, he wants to "break the vicious circle of rising premiums and rising expenditure." In the long run, increasing premiums represent a greater burden for low-income earners than his reform plans, the minister stressed. Bruno Menzel (Free Democratic Party of Germany) also stressed that the "total sum to be saved in 1993 according to Seehofer's proposal is not negotiable."

Seehofer expects the planned reduction of prices for pharmaceuticals alone to yield savings involving over DM3 billion over the next two years. The coalition is determined to implement the "solidarity contribution by pharmaceutical companies." Dressler, who sharply criticized parts of Seehofer's concept, announced that "SPD participation is not free in political terms." The proposals contained in the draft for the new health law must be "corrected decisively." Above all, an organizational reform of the compulsory health insurance system is required. Only on condition that a true structural reform is carried out is the SPD willing to agree to a preliminary law whose short-term stipulations should be valid during a transitional period until the real reform becomes effective. Physicians, dentists, and pharmaceutical companies must naturally make their contribution to saving. In this connection, he mentioned a "cost-advantageous system of fees, new rates for hospital treatment, and finally price negotiations between the health insurance companies and the pharmaceutical enterprises."

The SPD politician made it clear that his party will by no means endorse another increase in the participation of those insured. He described as irritating reports according to which the coalition, besides holding talks with the SPD, also plans to discuss amendments to the draft bills in working groups with associations of the health sphere. "If you are really interested in arriving at a solid solution with the SPD, this procedure will not be possible," Dressler pointed out.

At the beginning of the four-hour debate, Seehofer stressed that record premiums and record deficits make resolute action necessary. Otherwise, premiums might increase to 15 or even 20 percent by the end of 1994. Increased premiums might be discussed if they led to real improvements in medical care. "However, this is not the case at the moment. Quite the contrary. Higher premiums mean financing waste and inefficiency at the moment."

Politicians from all parties unanimously condemned recent attacks by some physicians and dentists' representatives against Seehofer and his concept as unacceptable. Dressler stated that it is the task of the whole parliament to make it clear that "the German Bundestag will not bow to pressure or yield to force."

Seehofer, who explicitly praised Ulrich Oesingmann, chairman of the federal association of physicians participating in the health- insurance plan, for his "courage to change course," warned against fanning fears among the sick and the insured in connection with the discussion about the draft law. Referring to criticism by doctors of the planned adoption of a budget for medical supplies, he stressed: "I guarantee that every sick person will also get the medical supplies he needs after the introduction of the reform."

The pharmaceutical industry, the Hartmann Association, and the Association of Dental Technicians continue to oppose Bonn's saving plans. About 15,000 dental technicians from all over Germany held a protest rally in Bonn. Seehofer's draft endangers the existence of numerous enterprises employing dental technicians and thus the supply of the patients, they claimed.

IRELAND

Official Announces End to Bovine Tuberculosis

92WE0646 Dublin IRISH INDEPENDENT in English 24 Jul 92 p 10

[Text] Bovine TB has been virtually eliminated in this country, Department of Agriculture secretary, Michael Dowling, told the Dail Public Accounts Committee yesterday.

He said the Department would not accept that the record of the TB eradication scheme was as appalling as some people suggested.

He said the problem was in eliminating a small residual amount of infection. It had been largely eliminated over the most of the country.

A solution to the remaining problem would be more likely if certain arrangements were changed. Some changes had been made over the past year. There was now a formal contractual arrangement with the vets.

Mr. Dowling said negotiations were currently under way with farming interests to significantly tighten up the way the system operated.

TURKEY

Quarantine Imposed Following Rabies Death

TA2908074992 Ankara Turkiye Radyolari Network in Turkish 2000 GMT 28 Aug 92

[Excerpt] Following the death of one person from rabies, a quarantine has been imposed on the Cengeller quarter of (Dokurcum) in Akyazi district in Sakarya. Authorities have said that the family members of Senol Duman, the victim, and persons who ate dairy products from the milk of the sheep, which has been determined to have rabies, are urged to report to the nearest clinic for rabies shots. [passage omitted]

UNITED KINGDOM

Lapses of National Health Service Scored

92WE0551A London THE DAILY TELEGRAPH in English 11 Jun 92 p 8

[Article by David Fletcher]

[Text] National Health Service staff are severely criticised for a "catalogue of service failures" in a report by Mr. William Reid, health service Ombudsman, on 17 cases he recently investigated.

He accused them of lapses of procedure, inattention to patients' welfare and delays in giving appointments.

"Never before have I encountered such lack of regard for the welfare of a vulnerable patient as in one case where a financial decision produced a level of service so bereft of compassion it ought never to be tolerated," said Mr. Reid.

The case involved a terminally-ill cancer patient who was moved from her hospital ward every weekend for 10 weeks because it was repeatedly closed to save money.

She was nursed in a small side room even though she was claustrophobic. Staff protested but she was not moved to a hospice until two days before she died.

- Mr. Reid criticised managers at the unnamed hospital for insisting on being present when his investigator interviewed staff. He added: "If only health authorities took the correct action in the first place, or at least investigated complaints thoroughly, I would not need to intervene and the patient or relative would be spared added distress."

Another case involved a woman who complained about two GPs and had to wait 15 months before the matter was put before the chairman of the Medical Service Committee, as required under formal procedures.

"To have cause for complaint is bad enough but to pile upon that frustration about the way in which the complaint is then handled adds insult to injury," said Mr. Reid. "The whole affair was bungled and I called upon the authority to get proper procedures in place."

- The Association of Community Health Councils and Action for Victims of Medical Accidents, a group of lawyers acting for a patients, yesterday called for a new health standards inspectorate to handle complaints. They say patients are currently faced with "a bewildering labyrinth of procedures."

Health Secretary Presents Ministry White Paper

92WE0592A London THE DAILY TELEGRAPH in English 9 Jul 92 p 7

[Article by Peter Pallot. Words in boldface, as published.]

[Text] The prospect of a healthier Britain, where people live longer and there are fewer deaths from heart disease, cancer and AIDS was unveiled by Mrs. Virginia Bottomley, the Health Secretary, yesterday.

A White Paper called THE HEALTH OF THE NATION, includes a range of targets for cutting heart disease, stroke, cancer, accidents, mental illness and sexually-transmitted diseases.

"Although there is much the Government and the Health Service need to do, the objectives and targets cannot be delivered by the Government and the NHS alone," said Mrs. Bottomley. "They are truly for the nation, for all of us to achieve."

She hailed the document as "a major new landmark in the development of the National Health Service." She said the White Paper had "the potential to take this country to the top of the health league."

"We have been adding years to life. The health strategy is about adding life to those years. Ultimately it means adding even more years to life," she said.

The White Paper highlights health education to encourage people to avoid obvious health risks such as excessive drinking and cigarette smoking.

Care for the sick, elderly and mentally ill will be maintained and there will be further efforts to clean up the environment.

Heart disease, cancer, mental illness, accidents, AIDS and sexual health have been chosen for priority action.

Mrs. Bottomley and the Government hope to see positive gains in those areas by the turn of the century.

Britain lags behind most of Europe in health, with shorter life expectancy and relatively high rates of infant mortality, the main yardstick by which the efficiency of health services are judged, says the White Paper.

While America, Australia and many European countries have achieved dramatic reductions in heart disease, progress in Britain has been slow.

The huge toll taken by circulatory disease, mainly heart attacks but including strokes, is highlighted. They caused 46 percent of all deaths last year compared with 26 percent 60 years ago. Cancer, another disease seen as largely preventable, has caused 25 percent of deaths last year, compared with 13 percent in 1931.

"Many people die prematurely or suffer debilitating ill-health from conditions which are to a large extent preventable," says the White Paper.

"The way people live and the lifestyles they adopt can have profound effects in subsequent health," it adds.

On reducing suicide rates—currently 11 cases a year per 100,000 population—the document says that community care will play a key role, although this needs to be monitored.

Accidents are the biggest killer of people under 30 in England but many of the deaths could be avoided, the document says, by information and education.

Fostering stability in personal and sexual relationships is the only way to slow down HIV and AIDS, it says.

But venereal diseases have shown an increase in the last two years and the Government underlines the need for continuing publicity and education about sexual health.

The White Paper undertakes to keep cigarette prices at current levels in real terms and to mount a drive to discourage smoking in children and adults. The Government promises to consider a ban on advertising by tobacco companies, who spend £100 million a year on promotion.

To make the policy work, the Government has set up a Ministerial Cabinet Committee to co-ordinate action and to oversee the strategy.

Eleven Government departments are involved in the committee, which backs up the work already being done by existing groups on drugs, alcohol and AIDS.

Three other working groups, involving the Chief Medical Officer, a minister and the Chief Executive of the NHS management executive, will monitor the work.

Among its ambitious plans for beating cancer, the White Paper outlines its Ten Commandments:

1. Do not smoke. Smokers should stop as soon as possible and not smoke in the presence of others.

2. Moderate consumption of alcohol.

3. Avoid excess exposure to the sun.

4. Follow work safety instructions concerning production or use of cancer-causing substances.

5. Eat fresh fruit and vegetables, and cereals with a high fibre content.

6. Avoid being overweight.

7. See a doctor if you notice a lump or a change in a mole, or abnormal bleeding.

8. See a doctor if you have a persistent problem, such as a cough, hoarseness, change in bowel habits or an unexplained weight loss.

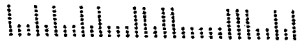
9. Have a cervical smear regularly.

10. Women should check their breasts regularly and undergo breast X- rays at regular intervals above the age of 50.

Targets

Targets set by the White Paper for improving health include:

- **Heart disease and stroke:** cut death rates in people under 65 by at least 40 percent by 2000.
- **Cancer:** cut death rates for breast cancer in women invited for screening by at least 25 percent, and invasive cervical cancer by at least 20 percent by 2000. Cut lung cancer death rate for those under 75 by at least 30 percent in men and 15 percent in women by 2010. Halt the increase in skin cancer by 2005.
- **Sexual health:** cut gonorrhoea by at least 20 percent by 1995 as an indicator of HIV/AIDS trends. Cut by at least 50 percent the conception rate among under 26s by 2000.
- **HIV/Aids:** cut the percentage of injecting drug misusers who report sharing injecting equipment in the previous four weeks from 20 percent in 1990 to 10 percent by 1997 and five percent by 2000.
- **Drinking habits:** cut the proportion of men drinking more than 21 units of alcohol per week and women drinking more than 14 units per week by 30 percent by 2005.



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